

# IARS SCHEDULE



# IARS

International Anesthesia Research Society



**3:00 pm – 5:00 pm**

*Agora / Centre-Ville*

Journal Symposium

**Research Highlights and Future of Publishing:  
Perspectives of Journal Editors**

Moderated by Colleen Koch, MD MS, MBA,  
FACC, FASA, Johns Hopkins University School of  
Medicine

**Research Highlights:**

**Canadian Journal of Anesthesia**

Gregory L. Bryson, MD, MSc, University of  
Ottawa, The Ottawa Hospital

**Research Highlights:**

**British Journal of Anaesthesia**

Hugh C. Hemmings, MD, PhD, FRCA, Weill  
Cornell Medical College

**Research Highlights:**

**Anesthesia & Analgesia**

Angela Enright, OC, MB, FRCPC, University  
of British Columbia; Royal Jubilee Hospital

**Research Highlights:**

**Anesthesiology**

Evan Kharasch, MD, PhD, Duke University  
School of Medicine

**Plan S and the Future of Biomedical  
Journals**

Gregory L. Bryson, MD, MSc;  
Angela Enright, OC, MB, FRCPC; Hugh C.  
Hemmings, MD, PhD, FRCA  
& Evan Kharasch, MD, PhD

**5:15 pm – 6:45 pm**

*Agora / Centre-Ville*

Panel

**Peri-Operative Myocardial Injury and  
Infarction: Pathophysiology, Prognosis and  
Treatment**

Moderated by W. Scott Beattie, MD, PhD, FRCPC,  
University of Toronto Faculty of Medicine

**Pathophysiology of Perioperative  
Myocardial Injury and Infarction**

Giora Landesberg, MD, DSc, MBA,  
Hadassah Women's Organization, Hadassah  
- Hebrew University Medical Center

**Should We Measure Cardiac Biomarkers  
before and after Surgery?**

Peter Nagele, MD, MSc, University of  
Chicago Medicine

**Treatment Options for Myocardial Injury  
or Infarction after Noncardiac Surgery**

Duminda Nalaka Wijeyesundera, MD, PhD,  
FRCPC, University of Toronto  
Faculty of Medicine

**5:30 pm – 6:30 pm**

*Square Victoria*

**Scholars' Program Mentoring and Networking  
Reception**

Meet and network with the leaders of the  
anesthesiology field – and Scholars' Program  
participants will be paired with mentors.

*This reception is part of the Scholars' Program,  
and a ticketed event, visit registration for details.*

**7:00 pm – 8:30 pm**

**Taste of Montreal Dine-Around**

If you haven't already, be sure to pre-register for  
this intimate dining experience at registration.  
Space is limited; dinner costs are the  
responsibility of each attendee.



## 78 SATURDAY, MAY 18 AT-A-GLANCE: IARS

8:00 am – 5:00 pm

Place du Canada / Square Dorchester

### IARS POSTER SESSION D: OPEN VIEWING

6:45 am – 7:45 am

Parc Mont-Royal

Continental Breakfast

6:45 am – 7:45 am

Rue Crescent

Preparing for Retirement Continental Breakfast\*

6:45 am – 7:45 am

Square Victoria

IARS First-Time Attendee Orientation Continental Breakfast\*

8:00 am – 9:30 am

Agora / Centre-Ville

Opening Session and T.H. Seldon Memorial Lecture: The Global Anesthesia and Surgical Crisis: What Can We Do?

10:00 am – 10:45 am

Av. Van-Horne

RCL: The ASRA Regional and Pain Anticoagulation Guidelines

10:00 am – 11:00 am

Vortex

PBLD: Multiple Challenges during Trans-Catheter Pulmonary Valve Implantation for Severe Stenosis and Regurgitation of an RV to PA Conduit\*

10:00 am – 11:00 am

Ping

PBLD: Let Me Outta Here! Can There Be AMA Discharge from PACU?\*

10:00 am – 11:30 am

Av. Laurier

Panel: Nudging Physicians to Change Behavior: The Theory, Conduct, and Critical Assessment of Nudge-Type Interventions

10:00 am – 11:30 am

Av. Duluth

Panel: Information Technology, Decision Support, Machine Learning, and Artificial Intelligence: How They Will Transform the Practice of Anesthesiology

10:00 am – 12:00 pm

Agora / Centre-Ville

AUA Symposium: Anesthesia and Consciousness: How Investigations of the Anesthetized State Shape Current Concepts of Consciousness

11:30 am – 1:00 pm

Av. Laurier

Panel: Physician Wellness in Hospital Medicine: Thriving, Not Simply Surviving

11:30 am – 1:00 pm

Av. Duluth

WFSA and IARS Panel: Controversies in Global Health

11:30 am – 1:00 pm

Av. Van-Horne

SOCCA Panel: Towards Precision Medicine Intensive Care Unit

12:15 pm – 1:00 pm

Agora / Centre-Ville

RCL: The Development, Use, and Limitations of Standards, Guidelines and Best Practices

12:00 pm – 1:00 pm

Vortex

PBLD: Tonsillectomy in Obese Children with Down Syndrome: Not Just Another T&A!\*

12:00 pm – 1:00 pm

Ping

PBLD: Random Drug Testing in Anesthesia: Prevention and Protection or Invasive and Generation of a Slippery Slope?\*

\*Ticketed event, visit registration for details

## 79 SATURDAY, MAY 18 AT-A-GLANCE: IARS

**1:00 pm – 2:30 pm**

*Place du Canada / Square Dorchester*

IARS Poster Session D – Presenters in Attendance

**1:00 pm – 2:30 pm**

Lunch on Your Own

**2:30 pm – 3:15 pm**

*Av. Van-Horne*

RCL: Pain Outcomes, Patient Registries and Learning Health Systems: Delivery of Best Pain Care at Lower Cost

**2:30 pm – 3:30 pm**

*Vortex*

SNACC PBLD: Anesthesia for Stroke: Challenges and Opportunities

**2:30 pm – 4:00 pm**

*Av. Laurier*

ISPCOP Panel: Fables, Facts and Best Practice Updates: The Patient with Obesity

**2:30 pm – 4:00 pm**

*Agora / Centre-Ville*

SOAP Panel: Attaining the Opioid-Free Cesarean Delivery

**2:30 pm – 4:00 pm**

*Av. Duluth*

SAMBA Innovative Session: Wait, You Can't Do That: Or Can You? Controversies in Ambulatory Anesthesia

**2:30 pm – 5:30 pm**

*Rue Saint-Denis*

Workshop: Reflections on the Balancing Act between Work and Life\*

**4:00 pm – 4:30 pm**

Break

**4:30 pm – 5:15 pm**

*Av. Van-Horne*

SOCCA RCL: Reducing Variation in Red Blood Cell Transfusions: Are We Making Progress?

**4:30 pm – 5:30 pm**

*Vortex*

PBLD: Perioperative Pain Management in Patients on Buprenorphine\*

**4:30 pm – 6:00 pm**

*Av. Laurier*

eSAS Panel: Getting Beyond the Anesthesiology Department: Broad Impact through Broad Thinking

**4:30 pm – 6:30 pm**

*Agora / Centre-Ville*

International Science Symposium: Dementia: Let's Stop Losing Our Minds

**4:30 pm – 6:30 pm**

*Av. Duluth*

Innovative Session: A Walking History of Medicine in Montreal: Osler, Penfield and Bethune\*

**5:30 pm – 6:15 pm**

*Av. Van-Horne*

SOCCA RCL: What Is the Magic Number? Blood Pressure Thresholds in the Operating Room, ICU and Beyond

**6:15 pm – 8:00 pm**

*Place du Canada / Square Dorchester*

Alignment Reception

\*Ticketed event, visit registration for details

## WELCOME TO ALIGNED MEETING DAY!

Every IARS, AUA and SOCCA attendee is welcome at every session today. If a session is a ticketed event, please visit the Registration Desk to find out if space is still available.

**6:45 am – 7:45 am**

*Parc Mont-Royal*

### Continental Breakfast

Come meet your fellow anesthesiologists over a cup of coffee – you never know who you'll run into!

**6:45 am – 7:45 am**

*Rue Crescent*

### Planning for Retirement Continental Breakfast

It's never too early (or late) to start planning for retirement. Come talk to others about steps you can take to make sure you're ready!

*Ticketed event; visit the Registration Desk for details.*

**6:45 am – 7:45 am**

*Square Victoria*

### IARS First-Time Attendee Continental Breakfast

If you've never been to the IARS Annual Meeting (or you just want a few pointers) here's your chance to learn from the experts how to get the most from your Annual Meeting experience. *Ticketed event; visit the Registration Desk for details.*

**8:00 am – 9:30 am**

*Agora / Centre-Ville*

## OPENING SESSION AND T.H. SELDON MEMORIAL LECTURE

### The Global Anesthesia and Surgical Crisis: What Can We Do?

#### Welcome Comments

*Colleen Koch, MD, MS, MBA, FACC, The Johns Hopkins University School of Medicine, IARS Board of Trustees Chair*

#### Introduction

*Davy Cheng, MD, MSc, FRCPS, FCAHS, CCPE, IARS Board of Trustees; World Federation of Societies of Anaesthesiologists Chair, Scientific Affairs Committee*

#### The Global Anesthesia and Surgical Crisis: What Can We Do?

*Jannicke Mellin-Olsen, MD, DPH, Baerum Hospital; President-Elect, World Federation of Societies of Anaesthesiologists*



**8:00 am – 5:00 pm**

*Place du Canada / Square Dorchester*

### IARS Poster Session D: Open Viewing

*For session details, see the IARS Posters tab.*

**9:30 am – 10:00 am**

Break

**10:00 am – 10:45 am**

*Av. Van-Horne*

### Review Course Lecture

#### The ASRA Regional and Pain Anticoagulation Guidelines

*Host: Aryeh Shander, MD, FCCM, FCCP, FASA, Englewood Hospital and Medical Center  
Speaker: Honorio Benzon, MD, Northwestern University Feinberg School of Medicine*

10:00 am – 11:00 am

Vortex

Problem-Based Learning Discussion  
**Multiple Challenges during Trans-Catheter Pulmonary Valve Implantation for Severe Stenosis and Regurgitation of an RV to PA Conduit**

Sheela Pai Cole, MD, Stanford University School of Medicine & Mounir Banoub, MD, MBA, CPE, FAAPL, FASA, Augusta University Medical Center  
 Ticketed event; visit the Registration Desk for details.

10:00 am – 11:00 am

Ping

Problem-Based Learning Discussion  
**Let Me Outta Here! Can There Be AMA Discharge from PACU?**

Linda Liu, MD, University of California, San Francisco School of Medicine & Karl Poterack, MD, Mayo Clinic  
 Ticketed event; visit the Registration Desk for details.

10:00 am – 11:30 am

Av. Laurier

Panel

**Nudging Physicians to Change Behavior: The Theory, Conduct, and Critical Assessment of Nudge-Type Interventions**

Moderated by Craig S. Jabaley, MD, Emory University Hospital

**Behavioral Change in Perioperative Quality Improvement: Lessons from the Business World**

Grant Lynde, MD, MBA, Emory University Hospital

**Applications of Nudge Theory in the Anesthesiology and Perioperative Domains**

Craig S. Jabaley, MD, Emory University School of Medicine

**Implementation and Assessment of Nudge-Type and Other Quality Improvement Interventions**

Vikas N. O'Reilly-Shah, MD, PhD, Emory University School of Medicine

10:00 am – 11:30 am

Av. Duluth

Panel

**Information Technology, Decision Support, Machine Learning, and Artificial Intelligence: How They Will Transform the Practice of Anesthesiology**

Moderated by Ronald Pearl, MD, PhD, Stanford University School of Medicine

**Use of Information Technology and Decision Support in Anesthesiology**

Warren S. Sandberg, MD, PhD, Vanderbilt University School of Medicine

**Closed-Loop Anesthesia Administration**

Thomas Hemmerling, MD, MSc, DEAA, McGill University

**Machine Learning for Improving Management of Acute and Chronic Pain**

Timothy T. Houle, PhD, Massachusetts General Hospital

**The Future of Artificial Intelligence and Its Impact on Anesthesiology**

Steven L. Shafer, MD, Stanford University School of Medicine

10:00 am – 12:00 pm

Agora / Centre-Ville



AUA Symposium

**Anesthesia and Consciousness: How Investigations of the Anesthetized State Shape Current Concepts of Consciousness**

Moderated by Ines P. Koerner, MD, PhD, Oregon Health & Science University, AUA Education Chair

**The Controversial Correlates of Consciousness**

George A. Mashour, MD, PhD, University of Michigan Medicine

**Consciousness, Sensory Disconnection and Anesthesia**

Robert Sanders, MBBS, PhD, FRCA, University of Wisconsin School of Medicine and Public Health

## Subcortical Arousal Systems and Emergence from General Anesthesia

Ken Solt, MD, Harvard Medical School; Massachusetts General Hospital

## Using Anesthesia to Probe Disorders of Consciousness

Stefanie Blain-Moraes, PhD, McGill University

## Perioperative FiO<sub>2</sub> on Postoperative Morbidity and Wound Infection

Janet Martin, MSc (HTA&M), PharmD, Western University; MEDICI Centre

## Global Perspective on Task-Sharing in Anesthesia

Jannicke Mellin-Olsen, MD, DPH, Baerum Hospital

11:30 am – 1:00 pm

Av. Laurier

### Panel

#### Physician Wellness in Hospital Medicine: Thriving, Not Simply Surviving

Moderated by Santhanam Suresh, MD, Ann & Robert H. Lurie Children's Hospital of Chicago

#### Physician Wellness in Hospital Medicine: Thriving, Not Simply Surviving

Santhanam Suresh, MD, Ann & Robert H. Lurie Children's Hospital of Chicago

#### Creating a Culture of Wellness

To be announced

#### Improving Practice Efficiency

Jeffery S. Vender, MD, The University of Chicago Medicine

#### Becoming a More Resilient Physician

Gregory B. Hammer, MD, Stanford University School of Medicine

11:30 pm – 1:00 pm

Av. Van-Horne



### SOCCA Panel

#### Towards Precision Medicine Intensive Care Unit

Moderated by Robert D. Stevens, MD, FCCM, Johns Hopkins University School Of Medicine

#### Clinical Informatics for Predictive and Prognostic Modeling in the ICU

Vitaly Herasevich, MD, PhD, Mayo Clinic

#### Omics Applications in Neurotrauma Research: From Pathobiology to Treatment

Alan I. Faden, MD, University of Maryland School of Medicine

#### Machine Learning in Intensive Care Medicine

Robert D. Stevens, MD, FCCM, Johns Hopkins School of Medicine

#### The NIH All of Us Precision Health Initiative

Sachin Kheterpal, MD, MBA, University of Michigan Medicine

11:30 pm –1:00 pm

Av. Duluth



### WFSA and IARS Panel

#### Controversies in Global Health

Moderated by Davy Cheng, MD, MSc, FRCPS, FCAHS, CCPE; WFSA Chair, Scientific Affairs Committee; IARS Board of Trustees

#### Surgical Safety Checklist: Impact on Postoperative Outcomes

Janet Martin, MSc (HTA&M), PharmD, Western University; MEDICI Centre

12:15 pm – 1:00 pm

Agora / Centre-Ville

### Review Course Lecture

#### The Development, Use, and Limitations of Standards, Guidelines and Best Practices

Host: Roman Schumann, MD, Tufts Medical Center

Speaker: Karl Poterack, MD, Mayo Clinic College of Medicine and Science



12:00 pm – 1:00 pm

Vortex

**Problem-Based Learning Discussion  
Tonsillectomy in Obese Children with Down  
Syndrome: Not Just Another T&A!**

Kumar G. Belani, MBBS, MS,  
University of Minnesota; Wilson T. Chimbira,  
MD, FRCA, University of Michigan Medicine &  
Olubukola O. Nafiu, MD, FRCA, MS, University of  
Michigan Medicine  
Ticketed event; visit the Registration Desk for  
details.

12:00 pm – 1:00 pm

Ping

**Problem-Based Learning Discussion  
Random Drug Testing in Anesthesia:  
Prevention and Protection or Invasive and  
Generation of a Slippery Slope?**

Keith Baker, MD, PhD, Massachusetts General  
Hospital; Richard C. Prielipp, MD, University of  
Minnesota & Mark Rice, MD, Vanderbilt University  
School of Medicine  
Ticketed event; visit the Registration Desk for  
details.

1:00 pm – 2:30 pm

Place du Canada / Square Dorchester

**IARS Poster Session D**

For session details, see the IARS Posters tab.

1:30 pm – 2:30 pm

**Lunch On Your Own**

Check out the Marché Artisans for a quick bite, or  
any of the many restaurants located in the hotel.

2:30 pm – 3:15 pm

Av. Van-Horne

**Review Course Lecture  
Pain Outcomes, Patient Registries and  
Learning Health Systems: Delivery of Best  
Pain Care at Lower Cost**

Host: Danielle Ludwin, MD, Columbia University  
Medical Center  
Speaker: Sean Mackey, MD, PhD, Stanford  
University School of Medicine

2:30 pm – 3:30 pm

Vortex



**SNACC Problem-Based Learning Discussion  
Anesthesia for Stroke: Challenges and  
Opportunities**

Lauren Berkow, MD, University of  
Florida College of Medicine &  
Shobana Rajan, MD, Cleveland Clinic  
Ticketed event; visit the Registration Desk for  
details.

2:30 pm – 4:00 pm

Av. Laurier



**ISPCOP Panel  
Fables, Facts and Best Practice Updates: The  
Patient with Obesity**

Moderated by Roman Schumann, MD, Tufts  
University School of Medicine

**NPO Assessment in the Obese Patient:  
When Ultrasound Can Help and How to  
Do It: Any Evidence?**

Peter B.C. Van de Putte, MD, AZ Monica  
Campus Deurne

**Non-Invasive Hemodynamic Monitoring  
in Obese Patients: A Challenge, and What  
Do We Know?**

Roman Schumann, MD, Tufts Medical  
Center

**Antibiotics, Heparins and Vasopressors:  
Evidence-Based Optimized Dosing  
Guidance**

Luc De Baerdemaeker, MD, PhD, Ghent  
University Hospital; UZ Gent Hospital

**Intubation and Extubation for the Obese  
Patient: Myths and Safe Approaches**

Tiffany Moon, MD, University of Texas  
Southwestern

2:30 pm – 4:00 pm

Agora / Centre-Ville



SOAP Panel

## Attaining the Opioid-Free Cesarean Delivery

Moderated by Brendan Carvalho, MBBCh, FRCA, Stanford University School of Medicine

### Opioid Use after Cesarean Delivery

Brendan Carvalho, MBBCh, FRCA, Stanford University School of Medicine

### In-Hospital Opioid-Sparing Multimodal Analgesic Techniques

Pervez Sultan, MD, MB, ChB, FRCA, University College London Hospital

### Changing Opioid Prescription Patterns after Cesarean Delivery

Brian Bateman, MD, MSc, Brigham and Women's Hospital

2:30 pm – 4:00 pm

Av. Duluth



SAMBA Innovative Session

## Wait, You Can't Do That: Or Can You?

### Controversies in Ambulatory Anesthesia

Moderated by Niraja Rajan, MD, Penn State Milton S. Hershey Medical Center  
Girish P. Joshi, MB BS, MD, FFARCSI, University of Texas Southwestern Medical Center  
Richard D. Urman, MD, MBA, CPE, FASA, Brigham and Women's Hospital; Harvard Medical School

2:30 pm – 5:30 pm

Rue Saint-Denis

Workshop

## Reflections on the Balancing Act Between Work and Life

Guelay Bilen-Rosas, MD, University of Wisconsin School of Medicine and Public Health; James Fehr, MD, Washington University School of Medicine; Norah R. Janosy, MD, University of Colorado Denver School of Medicine; Kathrine Keech, MD, University of Iowa; Martha Wynn, MD, University of Wisconsin School of Medicine and Public Health & Myron Yaster, MD, University of Colorado Denver School of Medicine  
Ticketed event; visit the Registration Desk for details.

4:00 pm – 4:30 pm

Break

4:30 pm – 5:15 pm

Av. Van-Horne



SOCCA Review Course Lecture

## Reducing Variation in Red Blood Cell Transfusions: Are We Making Progress?

Host: Angus Christie, MD, Spectrum Healthcare Partners

Speaker: Stephen D. Surgenor, MD, Dartmouth Hitchcock Health

4:30 pm – 5:30 pm

Vortex

## Problem-Based Learning Discussion Perioperative Pain Management in Patients on Buprenorphine

Daniel Burkhardt, MD, University of California, San Francisco School of Medicine; Sakura Kinjo, MD, University of California, San Francisco School of Medicine & Ruth Landau, MD, Columbia University Medical Center  
Ticketed event; visit the Registration Desk for details.

4:30 pm – 6:00 pm

Av. Laurier



eSAS Panel

## Getting Beyond the Anesthesiology Department: Broad Impact through Broad Thinking

Moderated by Michael R. Mathis, MD, University of Michigan Medicine

### Collaboration with Surgeons: Opportunities for Perioperative Data to Enhance Surgical Registries

Michael R. Mathis, MD, University of Michigan Medicine

**Collaboration with Primary Care:  
Opportunities to Improve Long-Term  
Cardiovascular Disease Risk**

*Robert B. Schonberger, MD, MHS, Yale School  
of Medicine*

**Collaboration with Pharmacists:  
Opportunities to Refine Medication  
Selection, Dosing and Delivery**

*Shamsuddin Akhtar, MD, MBBS, Yale University  
School of Medicine*

**4:30 pm – 6:30 pm**

*Agora / Centre-Ville*

**INTERNATIONAL SCIENCE SYMPOSIUM**

**Dementia: Let's Stop Losing Our Minds**

*Moderated by Christian P. Werner, MD, Medical Center of Johannes  
Gutenberg- Universität, IARS Board of Trustees*

**Dementia Update: What's New in the Field**

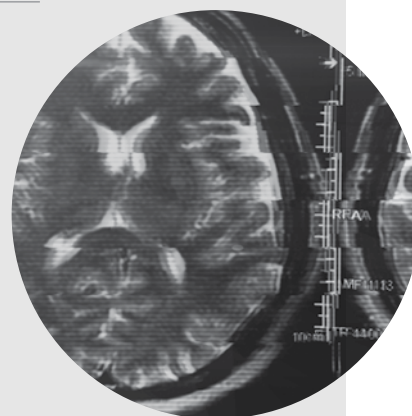
*Sandra E. Black, OC, OOnt, MD, FRCP(C), FRSC, FAAN, FAHA,  
University of Toronto*

**Critical Illness: What Matters is the Mind**

*E. Wes Ely, MD, PhD, Vanderbilt University School of Medicine*

**Mechanisms of Mind Loss: The Clock is Ticking**

*Erik S. Musiek, MD, PhD, Washington University School of Medicine*



**4:30 pm – 6:30 pm**

*Av. Duluth*

**Innovative Session**

**A Walking History of Medicine in Montreal:  
Osler, Penfield and Bethune**

*Michael Aaron Chyfet, MD, MSc, Montefiore  
Medical Center; Albert Einstein College of  
Medicine & Daniel Chartrand, MD, PhD, FRCPC,  
Montreal Neurological Hospital  
Ticketed event; visit the Registration Desk for  
details.*

**5:30 pm – 6:15 pm**

*Av. Van-Horne*



**SOCCA Review Course Lecture**

**What Is the Magic Number? Blood Pressure  
Thresholds in the Operating Room, ICU and  
Beyond**

*Host: Peter Von Homeyer, MD, FASE, University of  
Washington Medicine*

*Speaker: Ashish K. Khanna, MD, FCCP, FCCM,  
Wake Forest University School of Medicine*

**6:30 pm – 8:00 pm**

*Place du Canada/ Square Dorchester*

**Alignment Reception**

Join us in the Exhibit Hall to raise a glass with friends  
you know — and the ones you haven't met yet!

8:00 am – 5:00 pm

Place du Canada / Square Dorchester

## IARS POSTER SESSION E: OPEN VIEWING

6:00 am – 7:00 am

Parc Mont-Royal

Continental Breakfast

6:00 am – 7:00 am

Rue Crescent

International Connections Continental Breakfast\*

6:00 am – 7:00 am

Square Victoria

Women in Anesthesia Continental Breakfast\*

7:00 am – 9:00 am

Agora / Centre-Ville

Kosaka Best of Meeting Abstract Awards Oral and Poster Presentations

9:00 am – 9:30 am

Break

9:30 am – 10:30 am

Vortex

SASM PBLD: Perioperative Care of the Patient with OSA\*

9:30 am – 10:30 am

Ping

SAMBA PBLD: Ambulatory Anesthesia: Common Problems during Pediatric Care\*

9:30 am – 11:00 am

Av. Viger

Panel: The Enterprise Electronic Medical Record Data Access Problem: How to Build a Perioperative Data Warehouse for Quality Improvement, Reporting, and Research

9:30 am – 11:30 am

Agora / Centre-Ville

SNACC Panel: Opioid-Free Anesthesia: Biologic Basis and Potential Applications in Neurosurgical Anesthesiology

9:30 am – 11:00 am

Av. Duluth

APSF Panel: Can We Eliminate Medical Errors in the Operating Room?

9:30 am – 11:30 am

Av. Laurier

SYM: The Evolution of Onco-Anaesthesia: Changing How We Care for the Cancer Surgery Patient

9:30 am – 12:30 pm

Rue Notre-Dame

Workshop: Advanced Perioperative Ultrasound: Ultrasound Findings in Life-Threatening Perioperative Emergencies\*

11:00 am – 12:30 pm

Av. Duluth

Panel: Understanding Observational Studies: Updates from Perioperative Epidemiologists

11:00 am – 12:30 pm

Av. Viger

SOCCA Panel: Critical Care Anesthesiologist & Acute Care Continuum of Complex Stroke Patient

11:00 am – 12:30 pm

Agora / Centre-Ville

SmartTots Panel: Anesthesia and Neurotoxicity: A Conundrum for Clinicians

11:30 am – 12:15 pm

Av. Van-Horne

RCL: Airway Management of the Obstetric Patient: What's New?

\*Ticketed event, visit registration for details

## 11:30 am – 12:30 pm *Vortex*

PBLD: Pulmonary Alveolar Hemorrhage in a Patient with Short-Term Ventricular Assist Device Awaiting Heart Transplantation\*

## 11:30 am – 12:30 pm *Ping*

PBLD: Updates to Perioperative Management of the Left Ventricular Assist Device Patient Presenting for a Non-Cardiac Procedure\*

## 1:00 pm – 2:30 pm

Lunch on Your Own

## 1:00 pm – 2:30 pm

*Place du Canada / Square Dorchester*

IARS Poster Session E – Presenters in Attendance

## 2:00 pm – 2:45 pm *Av. Duluth*

RCL: Cardiovascular Outcomes in Transcatheter Aortic Valve Replacement: Implications for Anesthesiology

## 2:00 pm – 3:00 pm *Ping*

PBLD: Perioperative Management of the Patient with Type 2 Diabetes: From Guidelines to Individualized Patient Care\*

## 2:00 pm – 3:00 pm *Vortex*

PBLD: Heroin for Labor Pain: What Are You Smoking or How to Get Controversial Research Through the IRB\*

## 2:00 pm – 3:30 pm *Av. Laurier*

STA Panel: Beyond the Hype: Emerging Technologies and Their Potential to Improve Anesthesia Education, Research, and Care Delivery

## 2:00 pm – 3:30 pm *Agora / Centre-Ville*

SOCCA Panel: Sepsis-induced Coagulopathy: Mechanisms and Management

## 2:00 pm – 5:00 pm *Rue Saint-Denis*

Workshop: Bootcamp for Brief Cognitive Assessment Skills in the Perioperative Setting\*

## 2:00 pm – 6:00 pm *Rue Saint-De*

Scholars' Program: Leadership Workshop: Self-Awareness and Self-Management\*

## 2:00 pm – 6:00 pm *Rue Mansfield*

AUA, eSAS, IARS, FAER, MPOG, PACT & SOCCA: Initiative for Multicenter Pragmatic Anesthesiology Clinical Trials' (IMPACT)

## 3:30 pm – 4:00 pm

Break

## 4:00 pm – 5:00 pm *Vortex*

SNACC PBLD: Perioperative Management of the Patient with Closed Head Injury for Non-Neurologic Procedure\*

## 4:00 pm – 5:00 pm *Ping*

PBLD: Perioperative Atrial Fibrillation: Challenges in Prevention and Management\*

## 4:00 pm – 5:00 pm *Av. Duluth*

Innovative Session: Anesthetic Management of Intraoperative Neurophysiologic Monitoring (IONM) Signal Changes: A Case-Based, Simulation-Driven Learning Experience

\*Ticketed event, visit registration for details

## 88 SUNDAY, MAY 19 AT-A-GLANCE: IARS

**4:00 pm – 5:30 pm**

*Av. Viger*

Panel: Israel Society of Anesthesiologists & Israel Association of Obstetric Anesthesia  
Obstetric Anesthesia in Israel: Modern  
Obstetric Anesthesia Challenges in Traditional  
Populations

**4:00 pm – 5:30 pm**

*Agora / Centre-Ville*

Panel: Encouraging the Next Generation of  
Women: Growing Junior Faculty as Leaders

**4:00 pm – 6:00 pm**

*Av. Laurier*

SYM: Cell Death & Survival: Beyond  
Oxygenation

**6:00 pm – 8:00 pm**

*Square Victoria*

ISPCOP and McGill Anesthesia Networking  
Session

**6:30 pm – 8:00 pm**

Taste of Montreal Dine-Around\*



*\*Ticketed event, visit registration for details*



## 89 SUNDAY, MAY 19: IARS

6:00 am – 7:00 am

Parc Mont-Royal

### Continental Breakfast

Come meet your fellow anesthesiologists over a cup of coffee – you never know who you'll run into!

6:00 am – 7:00 am

Rue Crescent

### International Connections Continental Breakfast

What's better than starting the day with a cup of coffee (or tea!) and fellow anesthesiologists from around the world? *Ticketed event; visit the Registration Desk for details.*

6:00 am – 7:00 am

Square Victoria

### Women in Anesthesia Continental Breakfast

Sorry fellas, this one is ladies only please!

*Moderated by Jeanine P. Wiener-Kronish, MD, Massachusetts General Hospital*

*Ticketed event; visit the Registration Desk for details.*

7:00 am – 9:00 am

Agora / Centre-Ville

### KOSAKA BEST OF MEETING ABSTRACT AWARDS ORAL AND POSTER PRESENTATIONS

Come hear the best of the best present research and outcomes that are impacting the field of anesthesiology in the areas of Clinical Research, Basic Science and Scholar Abstracts.

The Kosaka Best of Meeting Abstract Awards are supported by the Japan Society for Clinical Anesthesia and the International Anesthesia Research Society.



The Japan Society for Clinical Anesthesia  
日本臨床麻酔学会

7:00 am – 7:30 am	Open Poster Viewing and Discussion
7:30 am – 7:35 am	Introduction
7:35 am – 8:00 am	Top Finalist: Basic Science Research Oral Presentations
8:00 am – 8:25 am	Top Finalist: Clinical Research Oral Presentations
8:25 am – 8:50 am	Top Finalist: Scholars Oral Presentations
8:50 am – 9:15 am	Top Late-Breaking Abstract Oral Presentations
9:15 am – 9:25 am	Judges Deliberate
9:25 am – 9:30 am	Winners Announced and Closing Statement

### TOP FINALISTS: BASIC SCIENCE RESEARCH

#### K1. Hyperoxic Resuscitation following Canine Cardiac Arrest Increases Cerebellar Purkinje Neuronal Damage and Inflammatory Microglial Activation

*Gary Fiskum, PhD, University of Maryland School of Medicine*

#### K2. Therapeutic Effects of Hyaluronic Acid in *E.coli* Bacterial Pneumonia in the Ex Vivo Perfused Human Lungs

*Jae-woo Lee, MD, University of California San Francisco*

**K3. GFAP Expression in the Visual Cortex is Increased in Juvenile Non-Human Primates That Were Exposed to Anesthesia during Infancy**

*Viola Neudecker, MD, Columbia University Medical Center*

**K.04. Opioid Therapy Algorithm for Chronic Non-Cancer Pain Based on APS, AAPM, CDC, ASA and ASRA Guidelines and Position Statements**

*Jason D. Lefkof, DO, University of Miami Miller School of Medicine presenting on behalf of Ethan L. Chambers, MD, University of Miami / Jackson Memorial Hospital*

TOP FINALISTS: CLINICAL RESEARCH

**K5. Effects of Incubating Packed Red Blood Cells with Common Infusion Crystalloids and Medications on Red Blood Cell Lysis, Aggregation and Deformability**

*Domagoj Mladinov, MD, PhD, University of Alabama at Birmingham (UAB)*

**K6. Sustaining the Gains: A 6-year Follow Through of the Impact of a Hospital-Wide Patient Safety Strategy on Global and Anesthetic Patient Safety Outcomes**

*Ming Ann Sim, MBBS, National University Hospital Singapore*

TOP FINALISTS: SCHOLARS

**K7. Bacterial Sepsis Increases Fibrillary Amyloid Load and Neuroinflammation in a Mouse Model of Alzheimer's Disease Pathology**

*Jacob Basak, MD, PhD, Washington University School of Medicine*

**K8. Response to Inhaled Anesthetics Measured by the Triple Variable Index Reveals Population-Specific Patterns of Intraoperative Hypotension Exposure**

*Michael P. Schnetz, MD, PhD, University of Pittsburgh*

**K9. Therapeutic Effects of High Molecular Weight Hyaluronic Acid in Ex Vivo Perfused Marginal Human Lungs Injured with Pseudomonas Aeruginosa**

*Shinji Sugita, MD, University of California, San Francisco*

FINALISTS: BASIC SCIENCE RESEARCH

**K10. Total Intravenous Anesthesia with a Novel Formulation of Isoflurane Perfluorocarbon-Based Nano-emulsion: Safety, Efficacy and Toxicity in Dogs**

*Behrouz Ashrafi, MD, University of Miami*

**K11. Milrinone Decreases Late Apoptosis in H9c2 Cardiomyocytes through a Non-Dependent ATP Pathway**

*Jose V. Montoya-Gacharna, MD, NYU Langone Health*

**K12. A Systems Immunology Approach to Characterize Lung Immune Response to Hyperoxia**

*Dusan Hanidziar, MD PhD, Massachusetts General Hospital*

**K13. Dexmedetomidine Prevents Lipopolysaccharide (LPS)-Induced Neuroinflammation and Cognitive Decline through an  $\alpha 2A$  Adrenoceptor Mechanism in Mice**

*Mervyn Maze, M.B., Ch.B., University of California San Francisco*

**K14. The Impact of Nutraceutical Pre-Habilitation and Postoperative Treatment with Ecoisapentanoic Acid (EPA) and Acetylsalicylic Acid (Aspirin) on a Novel Animal Model of Recovery after Surgery**

*Juan Cata, MD, MD Anderson Cancer Center*



**K15. Deep Immune Profile of Preoperative Glucocorticoid Administration in Patients Undergoing Surgery**

Amy Tsai, BA, Stanford University School of Medicine presenting on behalf of Brice Gaudilliere, MD, PhD, Stanford University School of Medicine

**K16. A Novel Learning Management System to Revolutionize Generation, Administration, and Assessment of Simulation-Based Medical Education**

Scott M. Pappada, PhD, The University of Toledo College of Medicine and Life Sciences

**FINALISTS: CLINICAL RESEARCH**

**K17. Contingency Planning to Overcome Critical Shortages of Hyperbaric Bupivacaine for Obstetric Anesthesia Care**

Laurence Ring, MD, Columbia University Medical Center

**K18. Patient-Reported In-Hospital Complications and Self-Reported Cognitive Function 1-Year after Surgery**

Thomas G. Kannampallil, PhD, Washington University School of Medicine

**K19. Epidemiology of Surgical Site Infection in Spinal Fusion Surgery and Patterns of Discordance with Surgical Antibiotic Prophylaxis: A Retrospective Case-Level Analysis**

Dustin R. Long, MD, University of Washington

**K20. Effects of Acetaminophen, NSAIDS, Gabapentinoids and Their Combinations on the Day of Surgery in Total Hip and Knee Arthroplasties**

Tetsu Ohnuma, MD, MPH., Duke University

**K21. Implementation of a Distributed Research Network Virtual Data Warehouse for a Multi-Center Observational Study**

Seshadri Mudumbai, MD, Stanford University

**K22. The Effect of Low Dose Intra-Operative Ketamine on Closed-Loop Controlled General Anesthesia: A Randomized Controlled Equivalence Trial**

Matthias Görges, PhD, The University of British Columbia

**K23. Poiseuille's Law Demonstration to Compare Flow Rates with Commonly Used Vascular Catheters and IV Tubing Accessories**

Christina R. Miller, MD, Johns Hopkins Hospital

**FINALISTS: SCHOLARS**

**K24. Ventilator-Induced Lung Injury in a Rat Model of Pulmonary Fibrosis is Influenced by Disease Severity and Tidal Volume**

Khoa Nguyen, BS, University of Central Florida

**K25. Novel Circulating Metabolic Markers Improve Discrimination of Metabolic Health Independent of Weight**

Stephen Ellison, MD, PhD, Duke University Medical Center

**K26. The INTUIT Study: Investigating Neuroinflammation Underlying Postoperative Neurocognitive Dysfunction and Delirium in Older Adults**

Thomas Bunning, BS, Duke University Medical Center

**K27. Imaging Cortical Activity During General Anesthesia: Insights into Cortical Pain Processing in Mice**

Jarret Weinrich, PhD, University of California San Francisco

**K28. The Left Angular Gyrus and Dorsal Anterior Cingulate Cortex: Key Regions for Pre-Post Operative Functional Resting State Decline?**

Cheshire Hardcastle, MSc, University of Florida

**K29. Risk Factors for Acute Kidney Injury after Primary Total Correction of Coarctation of the Aorta(COA) and Transposition of the Great Arteries(TGA) in Infants: A Retrospective Cohort study**

Soo Young Kim, MD, Asan Medical Center

**K30. Preoperative Gabapentinoids Increase Risk of Postoperative Opioid-Related Respiratory Depression in Adult Patients Undergoing Total Hip and Knee Arthroplasties**

Sean Moore, MD, MBA, Duke University

**TOP LATE-BREAKING ABSTRACTS**

**K31. Behavioral Sedation EEG Changes Induced by Dexmedetomidine Attenuated but not Eliminated in A Novel Adra2a Knockout Mouse**

Benjamin A. Harrison, BA Candidate, University of Pennsylvania

**K32. Restrictive Versus Liberal Transfusion Strategies in Cardiac Surgery: A Systematic Review and Meta-Analysis with Trial Sequential Analysis**

Hessam H. Kashani, MD, MSc, University of Manitoba

**K33. What Counts? Comparison of Manual Palpation, Mechanomyography, Acceleromyography and Electromyography for Twitch Assessment**

Kelly Michaelsen, MD, PhD, University of Washington

**8:00 am – 5:00 pm**

Place du Canada / Square Dorchester

**IARS Poster Session E: Open Viewing**

For session details, see see IARS Posters tab.

**9:00 am – 9:30 am**

Break

**9:30 am – 10:30 am**

Vortex



**SASM Problem-Based Learning Discussion Perioperative Care of the Patient with OSA\***

Crispiana Cozowicz, MD, Hospital for Special Surgery & Dawn Dillman, MD, Oregon Health and Science University

Ticketed event; visit the Registration Desk for details.

**9:30 am – 10:30 am**

Ping



**SAMBA Problem-Based Learning Discussion Ambulatory Anesthesia: Common Problems during Pediatric Care**

Kumar G. Belani, MD, President-Elect, SAMBA; University of Minnesota Masonic Children's Hospital & James Fehr, MD, Washington University School of Medicine

Ticketed event; visit the Registration Desk for details.

**9:30 am – 11:00 am**

*Av. Viger*

Panel

**The Enterprise Electronic Medical Record Data Access Problem: How to Build a Perioperative Data Warehouse for Quality Improvement, Reporting, and Research**

*Moderated by Richard H. Epstein, MD, Anesthesia Information Systems*

**Where's Waldo? Deconstructing a Complex EMR to Build a Perioperative Data Warehouse**

*Ira Hofer, MD, University of California, Los Angeles David Geffen School of Medicine*

**Holding on to the Baby When IT Throws Out the Bathwater: Maintaining Your Existing Data Warehouse**

*Jonathan Wanderer, MD, Vanderbilt University School of Medicine*

**Making Lemonade When All You Get Are Lemons: Building a Data Warehouse in the Face of IT Roadblocks**

*Paul Potnuru, MD, University of Miami - Miller School of Medicine*

**Getting to Yes: How to Convince Your IT Department to Support Your Data Warehouse Project**

*Mohamed Rehman, MD, Johns Hopkins All Children's Hospital*

**9:30 am – 11:00 am**

*Agora / Centre-Ville*



SNACC Panel

**Opioid-Free Anesthesia: Biologic Basis and Potential Applications in Neurosurgical Anesthesiology**

*Moderated by Dhanesh Kumar Gupta, MD, Duke University School of Medicine*

**Mechanisms of Opioid Induced Hyperalgesia and Possible Future Therapeutic Approaches**

*Jianren Mao, MD, PhD, Harvard University*

**Clinical Use of Esmolol, Lidocaine, Dexmedetomidine, and Ketamine for Opioid Free Anesthesia**

*Helene Beloeil, MD, PhD, University Rennes*

**Is Remifentanyl Essential for Neurosurgical Anesthesiology?**

*Dhanesh Kumar Gupta, MD, Duke University School of Medicine*

**9:30 am – 11:00 am**

*Av. Duluth*



APSF Panel

**Can We Eliminate Medical Errors in the Operating Room?**

*Moderated by Richard Prielipp, MD, MBA, FCCM, University of Minnesota Medical School; APSF Board of Directors*

**Perioperative Medication Errors: What is the Scope of the Problem?**

*Karen C. Nanji, MD, MPH, Harvard Medical School; Massachusetts General Hospital*

**Eliminating Medication Errors using Process Design**

*Eliot Grigg MD, University of Washington Medicine; Seattle Children's Hospital*

**There Has to Be a Better Way**

*Ken Catchpole, PhD, Medical University of South Carolina*

**Recommended Best Practices to Keep our Patients Safe, Expert Opinion Review**

*Joyce A. Wahr, MD, FAHA, University of Minnesota Medical School*

**9:30 am – 11:30 am**

*Av. Laurier*

Symposium

**The Evolution of Onco-Anaesthesia: Changing How We Care for the Cancer Surgery Patient**

*Moderated by Julia Dubowitz, MBBS, Peter MacCallum Cancer Centre Anaesthesia*

**Translational Research in Onco-Anaesthesia: Where Are We Likely to Find Meaningful Answers?**

*Julia Dubowitz, MBBS, Peter MacCallum Cancer Centre*

*Bernhard Riedel, MBChB, FCA, FAHA, FASE, MMed., FANZCA, MBA, PhD, Peter MacCallum Cancer Centre*

**Making a Case for Specialized Onco-Anaesthesia for Perioperative Care of Cancer Surgery Patients**

Vijaya Gottumukkala, MB, BS, MD(Anes), FRCA, The University of Texas MD Anderson Cancer Center

**Modulating the Perioperative Surgical Stress Response to Improve Long Term Outcomes in Cancer Patients**

Gregory Fischer, MD, Memorial Sloan Kettering Cancer

**Expanding Onco-anaesthesia Research in the Era of Metadata**

Juan Cata, MD, MD Anderson Cancer Center

**9:30 am – 12:30 pm**

Rue Notre-Dame

**Workshop**

**Advanced Perioperative Ultrasound: Ultrasound Findings in Life-Threatening Perioperative Emergencies**

David Kiamanesh, MD, Stony Brook University School of Medicine; James A. Osorio, MD, Weill Cornell Medical Center; Oliver Panzer, MD, Columbia University Medical Center; New York-Presbyterian Hospital; Cortessa Russell, MD, Columbia University Medical Center; New York-Presbyterian Hospital; Julia B. Sobol, MD, Columbia University Medical Center; New York-Presbyterian Hospital & Paul D. Weyker, MD, Kaiser Permanente Medical Group of Northern California

Ticketed event; visit the Registration Desk for details.

**11:00 am – 12:30 pm**

Av. Duluth

**Panel**

**Understanding Observational Studies: Updates from Perioperative Epidemiologists**

Moderated by Karthik Raghunathan, MD, MPH, Duke University School of Medicine

**Hospital-Level Analyses**

Duminda Nalaka Wijesundera, MD, PhD, FRCP, University of Toronto Faculty of Medicine

**Studies That Use Propensity Scores**

W. Scott Beattie, MD, PhD, FRCP, University of Toronto Faculty of Medicine

**Natural Experiments**

Vijay Krishnamoorthy, MD, PhD, Duke University School of Medicine

**11:00 am – 12:30 pm**

Av. Viger



**SOCCA Panel**

**Critical Care Anesthesiologist & Acute Care Continuum of Complex Stroke Patient**

Moderated by Ozan Akca, MD, FCCM, University of Louisville Hospital

**Management of Acute Complex Stroke: From Emergency Room to the Interventional Suite**

Miguel Cobas, MD, FCCM, University of Miami, Jackson South Medical Center

**Should I Do MAC or General Anesthesia for My Thrombectomy Patient?**

Jerrad Robert Businger, D.O., University of Louisville

**Where to Admit the Acute Complex Stroke Patient after Thrombectomy?**

Alexander C. Fort, MD, University of Miami Miller School of Medicine

**Perioperative Stroke: Diagnostics, Prevention & Management**

Phillip Vlisides, MD, University of Michigan Medicine

**Critical Care Anesthesiologist's Role from ER to IR to the ICU: The MVP of Acute Complex Stroke**

Ozan Akca, MD, FCCM, University of Louisville Hospital

**11:00 am – 11:30 am**

Break

11:00 am – 12:30 pm

Agora / Centre-Ville



SmartTots Panel

**Anesthesia and Neurotoxicity: A Conundrum for Clinicians**

Moderated by Lena Sun, MD, MPH, Columbia University College of Physicians and Surgeons

**Preclinical Studies: Are These Models Reliable?**

Jeffrey Sall, PhD, MD, University of California, San Francisco School of Medicine

**Clinical Studies: Do We Have an Answer?**

Mary McCann, MD, MPH, Harvard University School of Medicine

**Can We Tie the Preclinical Data to Clinical Data?**

Lena Sun, MD, MPH, Columbia University College of Physicians and Surgeons

11:30 am – 12:15 pm

Av. Van-Horne

Review Course Lecture

**Airway Management of the Obstetric Patient: What's New?**

Host: Thomas Hemmerling, MD, MSc, DEAA, McGill University

Speaker: Sonia Vaida, MD, Penn State Milton S. Hershey Medical Center

11:30 am – 12:30 pm

Vortex

Problem-Based Learning Discussion

**Pulmonary Alveolar Hemorrhage in a Patient with Short-Term Ventricular Assist Device Awaiting Heart Transplantation**

Michael Murray, MD, Geisinger Medical Center; Gebhard Wagener, MD, Columbia University Medical Center & Amy Wang, MD, Columbia University Medical Center

Ticketed event; visit the Registration Desk for details.

11:30 am – 12:30 pm

Ping

Problem-Based Learning Discussion

**Updates to Perioperative Management of the Left Ventricular Assist Device Patient Presenting for a Non-Cardiac Procedure\*\***

Christopher Patrick Henson, DO, Vanderbilt University School of Medicine; Sathish S. Kumar, MD, University of Michigan Medicine & Michael R. Mathis, MD, University of Michigan Medicine

Ticketed event; visit the Registration Desk for details.

12:30 pm – 2:00 pm

Place du Canada / Square Dorchester

**IARS Poster Session E – Presenters in Attendance**

For session details, see the IARS poster tab.

1:00 pm – 2:00 pm

Lunch on Your Own

Check out the Marché Artisans for a quick bite, or any of the many restaurants located in the hotel.

2:00 pm – 2:45 pm

Av. Duluth

Review Course Lecture

**Cardiovascular Outcomes in Transcatheter Aortic Valve Replacement: Implications for Anesthesiology**

Host: Miko Enomoto, MD, Oregon Health & Science University

Speaker: John G. Augoustides, MD, FASE, FAHA, Perelman School of Medicine, University of Pennsylvania

Harish Ramakrishna, MD, FACC, FESC, FASE, Mayo Clinic College of Medicine

2:00 pm – 3:00 pm

Ping

Problem-Based Learning Discussion

**Perioperative Management of the Patient with Type 2 Diabetes: From Guidelines to Individualized Patient Care**

Elizabeth Watson Duggan, MD, Emory University School of Medicine

Ticketed event; visit the Registration Desk for details.

2:00 pm – 3:00 pm

Vortex

**Problem-Based Learning Discussion  
Heroin for Labor Pain: What Are You Smoking  
or How to Get Controversial Research  
through the IRB**

Michael H. Andreae, MD, Penn State Health  
Milton S. Hershey Medical Center & Kim Mauer,  
MD, School of Medicine, Oregon Health &  
Sciences University  
Ticketed event; visit the Registration Desk for  
details.

2:00 pm – 3:30 pm

Av. Laurier



STA Panel

**Beyond the Hype: Emerging Technologies  
and Their Potential to Improve Anesthesia  
Education, Research, and Care Delivery**

Moderated by Kai Kuck, PhD, President, STA;  
University of Utah

**Anesthesia Technology: We Can See the  
Future**

Kai Kuck, PhD, President, STA; University of  
Utah

**Blockchain and Anesthesia: Moving  
Beyond Bitcoin to Enhance Patient Safety**

John F. Pearson, MD, Beth Israel Deaconess  
Medical Center

**Man vs. Machine—or Man plus Machine?  
Leveraging Machine Learning and AI to  
Improve Health Care**

Parisa Rashidi, PhD, University of Florida  
College of Medicine

**Using Virtual and Augmented Reality to  
Augment Anesthesia Education and the  
Patient Experience**

Clyde Matava, MBChB, DA, MMed, Hospital  
for Sick Children

**How Can Mobile, Wearable, and Internet  
of Things Technology Help Me to Help  
My Patients?**

Jeff E. Mandel, MD, MS, Perelman School of  
Medicine, University of Pennsylvania

2:00 pm – 3:30 pm

Agora / Centre-Ville



SOCCA Panel

**Sepsis-Induced Coagulopathy: Mechanisms  
and Management**

Moderated by Wei Chao, MD, PhD, University of  
Maryland School of Medicine

**Coagulopathy in Sepsis: An Overview**

Jean-Francois Pittet, MD, The University of  
Alabama at Birmingham

**Molecular Link between Inflammation  
and Coagulopathy in Sepsis**

Brittney Williams, MD, University of  
Maryland School of Medicine

**DIC in Sepsis: A Practical Approach**

Jecko Thachil, MD, Manchester Royal  
Infirmary Haematology

2:00 pm – 5:00 pm

Rue Saint-Denis

Workshop

**Bootcamp for Brief Cognitive Assessment  
Skills in the Perioperative Setting**

Franchesca Arias, PhD, University of Florida  
College of Medicine & Catherine Price, PhD,  
ABPP/CCN, University of Florida College of  
Medicine

Ticketed event; visit the Registration Desk for  
details.



2:00 pm – 6:00 pm

Av. Van-Horne



AUA, eSAS, IARS, FAER, MPOG, PACT  
& SOCCA  
Initiative for Multicenter Pragmatic  
Anesthesiology Clinical Trials' (IMPACT)

#### Introduction

Eric Jacobsohn, MBChB, MHPE, FRCPC,  
University of Manitoba  
Jeanine Wiener-Kronish, MD, Massachusetts  
General Hospital

#### How to Conduct Pragmatic Trials in Under-resourced Countries

Bruce Biccand, MD, University of Kwazulu-  
Natal, South Africa

#### How to Conduct a Massive Multi-center Stepped Wedge Pragmatic Trial

Jessica Spence, MD, McMaster University

#### Trials and Tribulations of Ambitious Multicenter Pragmatic Trials

David Mazer, MD, University of Toronto

#### IMPACT Awards Presentations

Duminda Nalaka Wijeyesundera, MD, PhD,  
FRCPC, University of Toronto Faculty of  
Medicine

2:00 pm – 6:00 pm

Rue Mansfield

#### Scholars' Program: Leadership Workshop Self-Awareness and Self-Management

Workshop led by Duane Anthony Wilson, MA,  
University of Notre Dame & Jean Ann Larson,  
FACHE, LFHIMSS, FIIE, UAB Health System; UAB  
School of Medicine  
Ticketed event; visit the Registration Desk for details.

3:30 pm – 4:00 pm

Break

4:00 pm – 5:00 pm

Vortex



#### SNACC Problem-Based Learning Discussion Perioperative Management of the Patient with Closed Head Injury for Non-Neurologic Procedure

Martin Dworschak, MD, MBA,  
Medical University of Vienna &  
Letha Mathews, MD, Vanderbilt University  
Medical Center  
Ticketed event; visit the Registration Desk for  
details.

4:00 pm – 5:00 pm

Ping

#### Problem-Based Learning Discussion Perioperative Atrial Fibrillation: Challenges in Prevention and Management

Suzanne Bennett, MD, University of  
Cincinnati Medical Center & Kunal  
Karamchandani, MD, FCCP, Penn State  
Milton S. Hershey Medical Center  
Ticketed event; visit the Registration Desk for  
details.

4:00 pm – 5:00 pm

Av. Duluth

#### Innovative Session Anesthetic Management of Intraoperative Neurophysiologic Monitoring (IONM) Signal Changes: A Case-Based, Simulation-Driven Learning Experience

Moderated by Colby G. Simmons, DO, MBA,  
University of Colorado School of Medicine  
Leslie Jameson, MD, University of Colorado  
School of Medicine

4:00 pm – 5:30 pm

Av. Viger

Panel

**Israel Society of Anesthesiologists & Israel Association of Obstetric Anesthesia  
Obstetric Anesthesia in Israel: Modern  
Obstetric Anesthesia Challenges in Traditional  
Populations**

*Moderated by Yehuda Ginosar, BSc, MBBS,  
Hadassah Hebrew University Medical Center*

**"Be Fruitful and Multiply": Anesthetic  
Challenges of High Order (>5) Cesarean  
Delivery**

*Alexander Ioscovich, MD, Shaare Zedek  
Medical Center, Hebrew University*

**"In Sorrow Thou Shalt Bring Forth  
Children": Do Anesthetic Interventions  
Have a Role to Play in Preventing Post-  
partum Depression?**

*Sharon Orbach-Zinger, MD, Rabin Medical  
Center, Campus Beilinson, Tel-Aviv  
University*

**"Two Nations Are in Thy Womb": Health  
Care and Obstetric Anesthesia as a  
Bridge to Peace**

*Yehuda Ginosar, BSc MBBS, Hadassah  
Hebrew University Medical Center*

4:00 pm – 5:30 pm

Agora / Centre-Ville

Panel

**Encouraging the Next Generation of Women:  
Growing Junior Faculty as Leaders**

*Moderated by Kathryn K. Lauer, MD, Medical  
College of Wisconsin*

**Leading from Within: How to Build a  
Team While Managing Clinical Service  
Demands**

*Susan A. Smith, MD, The Ochsner Clinic*

**How to Strategically Say "No" in Order  
to Build Your Career**

*Harriet W. Hopf, Speaker, MD, University of  
Utah Health Care*

**Designing an Academic Roadmap  
Success: Faculty Development  
and Mentorship in an Academic  
Anesthesiology Career**

*Colleen Koch, MD, MS, MBA, FACC,  
The Johns Hopkins University School of  
Medicine*

**The Challenges in Leading Up, Down and  
Laterally**

*Mada Helou, MD, University Hospitals at  
Case Medical Center*

**Using Emotional Intelligence and  
Mindful Communication to Gain (or Lose)  
Professional Influence**

*Elizabeth Watson Duggan, MD, Emory  
University School of Medicine*

4:00 pm – 6:00 pm

Av. Laurier

Symposium

**Cell Death & Survival: Beyond Oxygenation**

*Moderated by Mervyn Singer, MB BS, MD,  
FRCP(Lon), FRCP(Edin), FFICM, University College  
London*

**Sepsis and Mitochondria**

*Mervyn Singer, MB BS, MD, FRCP(Lon),  
FRCP(Edin), FFICM, University College  
London*

**Exercise Preconditioning**

*Zhen Yan, MD, PhD, University of Virginia  
School of Medicine*

**Hibernating Animals and Stress**

*Quintin Jose Quinones, MD, PhD, Duke  
University Medical Center*

**Tying It All Together: Future Strategies  
and Therapy**

*Robert Thiele, MD, University of Virginia  
School of Medicine*



**6:00 pm – 8:00 pm**

*Square Victoria*



**ISPCOP and McGill Anesthesia Networking Session**

**Exploring the Role of Prehabilitation and Patient Psychology in ERAS**

*Moderated by Gabriele Baldini, MD, McGill University; Naveen Eipe, MD, The Ottawa Hospital*

**Impact of Prehabilitation on ERAS**

*Francesco Carli, MD, McGill University*

**Preoperative Anxiety and Pain Management**

*Michael Sullivan, MD, McGill University*

**6:30 pm – 8:00 pm**

**Taste of Montreal Dine-Around**

If you haven't already, be sure to pre-register for this intimate dining experience at the registration desk. Space is limited; dinner costs are the responsibility of each attendee.



# 100 MONDAY, MAY 20 AT-A-GLANCE: IARS

8:00 am – 5:00 pm

Place du Canada / Square Dorchester

## IARS POSTER SESSION F: OPEN VIEWING

6:15 am – 7:15 am Foyer - Place du Canada

Continental Breakfast

6:15 am – 7:15 am Rue Crescent

Marketing Yourself for Success Continental Breakfast\*

6:15 am – 7:15 am Square Victoria

Trending Topics Continental Breakfast\*

7:30 am – 8:15 am Av. Viger

SPAQI RCL: Perioperative Troponin and MINS (Myocardial Injury after Noncardiac Surgery)

7:30 am – 8:30 am Vortex

PBLD: Rib Fracture Pain Management: Controversies and Conundrums

7:30 am – 8:30 am Ping

PBLD: Facts and Myths of Hyperkalemia\*

7:30 am – 9:00 am Av. Laurier

TAS, SOAP, SPA, and SAGA Panel: Trauma Anesthesia for Special Populations; Obstetric, Pediatric and Geriatric Patients

7:30 am – 9:30 am Agora / Centre-Ville

SYM: Intraoperative Opioids: Postoperative Consequences, Opioid-Free Anesthesia and Nociception-Index Guided Administration

9:00 am – 9:30 am

Break

9:30 am – 10:15 am Av. Duluth

ISPCOP RCL: Ambulatory Surgery in Morbid Obesity: Quo Vadis?

9:30 am – 10:30 am Ping

PBLD: What Is New in Management of Cirrhotic Patient for a TIPS Procedure?\*

9:30 am – 10:30 am Vortex

SAGA PBLD: My Patient Is 92 Years Old, Has a DNR, and Wants to Have Elective Shoulder Surgery!\*

9:30 am – 11:00 am Av. Laurier

Panel: Anesthesia and Sensory Awareness: How Mechanism May Inform Clinical Practice

9:30 am – 11:00 am Av. Viger

Panel: Anesthesiologists as Monitors of Physiology: Remote Monitoring of Postoperative and High-Risk Patients

9:30 am – 12:00 pm Av. Van-Horne

Innovative Session: Exploring Healthcare Disparities in Perioperative Medicine: Why Do We Care?

9:30 am – 12:30 pm Rue Notre-Dame

Workshop: (Slightly) Advanced Statistics: Regression Analysis for the Anesthesiologist\*

11:00 am – 12:30 pm Av. Viger

SPAQI and SAGA Panel: Mind Your Elders! A Multidisciplinary Approach to Geriatric Perioperative Care

\*Ticketed event, visit registration for details

# 101 MONDAY, MAY 20 AT-A-GLANCE: IARS

**11:00 am – 12:30 pm**

*Av. Laurier*

Panel: What's New in Critical Care: Cardiac, Neuro, Surgical and Medical Intensive Care

**11:30 am – 12:15 pm**

*Agora / Centre-Ville*

ASER RCL: Perioperative Medicine and Enhanced Recovery: Current State and Future Directions

**11:30 am – 12:30 pm**

*Vortex*

PBLD: What's Up: Evaluating Unexpected Intraoperative Hyperkalemia\*

**11:30 pm – 12:30 pm**

*Ping*

PBLD: Turning Blue on the Way to PACU. Unexpected Deterioration in a Pediatric Patient\*

**12:30 pm – 2:00 pm**

*Place du Canada / Square Dorchester*

IARS Poster Session F – Presenters in Attendance

**12:00 pm – 2:00 pm**

Lunch on Your Own

**2:00 pm – 2:45 pm**

*Av. Duluth*

RCL: Patient Selection for Ambulatory Surgery: Can Any Patient Be an Outpatient?

**2:00 pm – 3:00 pm**

*Vortex*

PBLD: One-Lung Anesthesia for Pacing Wire Change in 115kg Fontan Patient\*

**2:00 pm – 3:30 pm**

*Agora / Centre-Ville*

SAGA Panel: Waves of Delirium: Anesthetic-Induced EEG Patterns that Predict

Postoperative Delirium

**2:00 pm – 3:30 pm**

*Av. Viger*

Panel: Incivility in Academic Medicine: Incidence, Instigators and Impact

**2:00 pm – 4:00 pm**

*Av. Laurier*

SYM: Organ Protection during the Perioperative Period

**2:00 pm – 4:00 pm**

*Av. Van-Horne*

Innovative Session: Practical Lessons from Over 25-Years of Work in TIVA & Anesthetic Clinical Pharmacology

**3:30 pm – 4:00 pm**

Break

**4:00 pm – 4:45 pm**

*Av. Duluth*

RCL: Emergency General Surgery, the Elderly and Non-Beneficial Surgery: The Problems, Solutions and Outcomes

**4:00 pm – 5:30 pm**

*Agora / Centre-Ville*

eSAS Panel: Update and Primer on New Techniques in Basic Science Anesthesia Research (Optogenetics, CRISPR Cas-9, and Next-Gen Sequencing)

**4:00 pm – 5:30 pm**

*Av. Viger*

Panel: Pediatric Cardiac Anesthesia: Innovations from the Other Side of the Drape

**6:00 pm – 7:30 pm**

Taste of Montreal Dine-Around\*

\*Ticketed event, visit registration for details

**6:15 am – 7:15 am** Foyer - Place du Canada

## Continental Breakfast

Come meet your fellow anesthesiologists over a cup of coffee – you never know who you'll run into!

**6:15 am – 7:15 am** Rue Crescent

## Marketing Yourself for Success Continental Breakfast

We know you're great, and it's time everyone else knows it, too. Come have coffee and a bagel while you pick up some marketing pointers. *Ticketed event; visit the Registration Desk for details.*

**6:15 am – 7:15 am** Square Victoria

## Trending Topics Continental Breakfast

Jump feet-first into the day with discussions about what's new, controversial, exciting, and top-of-mind in anesthesia. *Ticketed event; visit the Registration Desk for details.*

**7:30 am – 8:15 am** Av. Viger



Society for Perioperative Assessment and Quality Improvement

## SPAQI Review Course Lecture Perioperative Troponin and MINS (Myocardial Injury after Noncardiac Surgery)

*Host: Ashish K. Khanna MD, FCCP, FCCM, Wake Forest University School of Medicine*

*Speaker: Steven L. Cohn, MD, FACP, SFHM  
University of Miami Miller School of Medicine  
Medicine*

**7:30 am – 8:30 am** Vortex

## Problem-Based Learning Discussion Rib Fracture Pain Management: Controversies and Conundrums

*Naveen Eipe, MD, The Ottawa Hospital*

**7:30 am – 8:30 am** Ping

## Problem-Based Learning Discussion Facts and Myths of Hyperkalemia

*Suzanne Bennett, MD, University of Cincinnati Medical Center & Corey S. Scher, MD, New York University School of Medicine*  
*Ticketed event; visit the Registration Desk for details.*

**7:30 am – 9:00 am** Av. Laurier



TRAUMA  
ANESTHESIOLOGIST  
SOCIETY

SOAP  
Society for Obstetric Anesthesia and Perinatology



## SAGA

TAS, SOAP, SPA, and SAGA Panel  
**Trauma Anesthesia for Special Populations;  
Obstetric, Pediatric and Geriatric Patients**  
*Moderated by Michael Murray, MD, Geisinger Medical Center*

## Trauma Anesthesia in Obstetrical Patients

*Manuel C. Vallejo, MD, DMD, West Virginia University*

## Management of Pediatric Patients Who Have Sustained Trauma

*David A. Young, MD, Baylor College of Medicine; Texas Children's Hospital*

## Anesthesia in Geriatric Trauma Patients

*Maurice Joyce, MD, EdM, Alpert Medical School of Brown University*

**7:30 am – 9:30 am** Agora / Centre-Ville

## Symposium

## Intraoperative Opioids: Postoperative Consequences, Opioid-Free Anesthesia and Nociception-Index Guided Administration

*Moderated by Philippe Richebé, MD, PhD, University of Montreal*

## Opioid-Induced Tolerance and Hyperalgesia in Perioperative Medicine

*Martin S. Angst, MD, Stanford University School of Medicine*

## Opioid-Free Anesthesia: Future Direction?

*Patricia Marie Lavand'homme, MD, PhD, Cliniques Universitaires Saint Luc*

**Intraoperative Nociception Monitors:  
Better Opioid Administration for Better  
Outcomes?**

*Philippe Richebé, MD, PhD, University of  
Montreal*

**8:00 am – 5:00 pm**

*Place du Canada / Square Dorchester*

**IARS Poster Session F: Open Viewing**

*For session details, see IARS Posters tab.*

**9:00 am – 9:30 am**

Break

**9:30 am – 10:15 am**

*Av. Duluth*



**ISPCOP Review Course Lecture  
Ambulatory Surgery in Morbid Obesity: Quo  
Vadis?**

*Host: Satya Krishna Ramachandran, FRCA,  
Harvard Medical School*

*Speaker: Naveen Eipe, MD, The Ottawa Hospital*

**9:30 am – 10:30 am**

*Ping*

**Problem-Based Learning Discussion  
What Is New in Management of Cirrhotic  
Patient for a TIPS Procedure?**

*Marina Moguilevitch, MD, Montefiore Medical  
Center*

**9:30 am – 10:30 am**

*Vortex*

**SAGA**

**SAGA Problem-Based Learning Discussion  
My Patient Is 92 Years Old, Has a DNR, and  
Wants to Have Elective Shoulder Surgery!**

*Martin Dworschak, MD, MBA,  
Medical University of Vienna; Julie McSwain,  
MD, Medical University of South Carolina &  
Sylvia H. Wilson, MD, Medical University of South  
Carolina*

**9:30 am – 11:00 am**

*Av. Laurier*

Panel

**Anesthesia and Sensory Awareness: How  
Mechanism May Inform Clinical Practice**

*Moderated by Max B. Kelz, MD, PhD, Perelman  
School of Medicine, University of Pennsylvania*

**Unconsciousness, Sensory Disconnection  
and Predictive Coding: Why It Matters to  
the Anesthesiologist**

*Robert Sanders, MBBS, PhD, FRCA,  
University of Wisconsin School of Medicine  
and Public Health*

**Spatiotemporal Waves of Cortical  
Activity Are Evoked by Sensory Stimuli  
in the Anesthetized Brain**

*Alex Proekt, MD, PhD, Perelman School of  
Medicine, University of Pennsylvania*

**Cortical Networks Mediating Auditory  
Predictive Coding: Changes Across  
Awareness States**

*Matthew Banks, PhD, University of  
Wisconsin School of Medicine and Public  
Health*

**Thalamocortical Circuit Activation: Good  
or Evil?**

*Aeyal Raz, MD, PhD, University of Wisconsin  
School of Medicine and Public Health*

**9:30 am – 11:00 am**

*Av. Viger*

Panel

**Anesthesiologists as Monitors of Physiology:  
Remote Monitoring of Postoperative and  
High-Risk Patients**

*Moderated by Jeanine P. Wiener-Kronish, MD,  
Massachusetts General Hospital*

**Remote Monitoring: Updates and Future  
Studies**

*Jeanine P. Wiener-Kronish, MD,  
Massachusetts General Hospital*

**Results of One Year of Remote  
Monitoring of Postoperative Head and  
Neck Cancer Patients**

*Kyan C. Safavi, MD, MBA, Massachusetts  
General Hospital; Harvard Medical School*

**Routine Postsurgical Anesthesia Visit to Improve Patient Outcome (TRACE)**

Wolfgang Buhre, MD, PhD, University Clinic Maastricht

**Remotely Monitoring ECMO Patients: How to Do It**

Kenneth T. Shelton, MD, Massachusetts General Hospital

**Biosensors and Wearables in Healthcare**

Stephen A. Esper, MD, University of Pittsburgh Medical Center

**9:30 am – 12:00 pm**

Av. Van-Horne

**Innovative Session**

**Exploring Healthcare Disparities in Perioperative Medicine: Why Do We Care?**

Michael H. Andreae, MD, Penn State Health Milton S. Hershey Medical Center

Erika Blacksher, PhD, University of Washington Medicine

Nathalia Jimenez, MD, MPH, Seattle Children's Hospital

Amos Jones, Esq. Doctor of Laws, Hepatitis Foundation International

Jay S. Kaufman, PhD, McGill University

Helen H. Lee, MD, MPH, College of Medicine, University of Illinois at Chicago

J. Renee Navarro, PharmD, MD, University of California, San Francisco School of Medicine

**9:30 am – 12:30 pm**

Rue Notre-Dame

**Workshop**

**(Slightly) Advanced Statistics: Regression Analysis for the Anesthesiologist**

Thomas M. Austin, MD, MS, Emory University School of Medicine; Lisa Kit-Ying Lee, MD, MS, University of California, Los Angeles David Geffen School of Medicine & Dmitry Tumin, PhD, Nationwide Children's Hospital  
Ticketed event; visit the Registration Desk for details.

**11:00 am – 12:30 pm**

Av. Viger



Society for Perioperative Assessment and Quality Improvement

**SAGA**

**SPAQI and SAGA Panel**

**Mind Your Elders! A Multidisciplinary Approach to Geriatric Perioperative Care**

Moderated by Jeanna D. Blitz, MD, New York University School of Medicine

**The Geriatric Patient: A Paradigm Shift in Preoperative Assessment**

Heather E. Nye, MD, PhD, University of California, San Francisco School of Medicine

**Perioperative Frailty-Epidemiology and Assessment**

Daniel I. Mclsaac, MD, MPH, FRCPC, University of Ottawa Faculty of Medicine

**Cognitive Vital Signs for Your Older Adult Patient**

Catherine Price, PhD, ABPP/CCN, University of Florida College of Medicine

**Prehabilitation for the Elderly Surgical Patient**

Michelle Humeidan, MD, PhD, The Ohio State University - Wexner Medical Center Anesthesiology

**Intraoperative Management of the Geriatric Patient**

Zdravka Zafirova, MD, The Icahn School of Medicine at Mount Sinai

**11:00 am – 12:30 pm**

Av. Laurier

**Panel**

**What's New in Critical Care: Cardiac, Neuro, Surgical and Medical Intensive Care**

Moderated by Ronald Pearl, MD, PhD, Stanford University School of Medicine

**What's New in Cardiac Critical Care**

Michael Wall, MD, FCCM, University of Minnesota Medical School

**What's New in Neuro Critical Care**

Jean G. Charchafli, MD, MPH, DrPH, Yale School of Medicine



**What's New in Surgical Critical Care**

Jean-Francois Pittet, MD, University of Alabama at Birmingham

**What's New in Medical Critical Care**

Ronald Pearl, MD, PhD, Stanford University School of Medicine

**11:30 am – 12:15 pm**

*Agora / Centre-Ville*



**ASER Review Course Lecture  
Perioperative Medicine and Enhanced  
Recovery: Current State and Future  
Directions**

Host: Susan Goobie, MD, Harvard Medical School

Speakers: Santhanam Suresh, MD, Ann & Robert H. Lurie Children's Hospital of Chicago  
Tong Joo (TJ) Gan, MD, MHS, FRCA, MBA, Stony Brook University School of Medicine

**11:30 am – 12:30 pm**

*Vortex*

**Problem-Based Learning Discussion  
What's Up: Evaluating Unexpected  
Intraoperative Hyperkalemia**

Jeffrey Gardner, MD, Wake Forest Baptist Health & Roman Schumann, MD, Tufts Medical Center  
Ticketed event; visit the Registration Desk for details.

**11:30 pm – 12:30 pm**

*Ping*

**Problem-Based Learning Discussion  
Turning Blue on the Way to PACU:  
Unexpected Deterioration in a Pediatric  
Patient**

Claude Abdallah, MD, MSc, Children's National Health System & Lawrence Schwartz, MD, Children's Hospital Colorado; University of Colorado  
Ticketed event; visit the Registration Desk for details.

**12:30 pm – 2:00 pm**

**IARS Poster Session F – Presenters in Attendance**

See IARS Posters tab for details.

**12:30 pm – 2:00 pm**

**Lunch on Your Own**

Check out the Marché Artisans for a quick bite, or any of the many restaurants located in the hotel.

**2:00 pm – 2:45 pm**

*Av. Duluth*

**Review Course Lecture**

**Patient Selection for Ambulatory Surgery:  
Can Any Patient Be an Outpatient?**

Host: Bobbie Jean Sweitzer, MD, FACP, Northwestern University Feinberg School of Medicine

Speaker: Girish P. Joshi, MB BS, MD, FFARCSI, The University of Texas Southwestern Medical Center

**2:00 pm – 3:00 pm**

*Vortex*

**Problem-Based Learning Discussion  
One-Lung Anesthesia for Pacing Wire Change  
in 115kg Fontan Patient**

Susan P. Taylor, MD, MPH, Medical College of Wisconsin & Anupama Wadhwa, MBBS, University of California, San Diego School of Medicine

Ticketed event; visit Registration Desk for details.

**2:00 pm – 3:30 pm**

*Agora / Centre-Ville*

**SAGA**

**SAGA Panel**

**Waves of Delirium: Anesthetic-Induced EEG  
Patterns that Predict Postoperative Delirium**

Moderated by Oluwaseun Johnson-Akeju, MD, Massachusetts General Hospital, Harvard Medical School

**Understanding Relationships between  
Intraoperative EEG Features, Anesthetic  
Dosage, Patient Cognition**

Miles Berger, MD, PhD, Duke University Medical Center

**Delirium in the PACU: What Does It  
Mean for Patient Safety? Can It Be  
Predicted and/or Prevented?**

Paul S. Garcia, MD, PhD, Columbia University Medical Center

**Electroencephalographic Evidence of Sensitivity to Volatile Anesthetic Agents as a Predictor**

Bradley A. Fritz, MD, Washington University School of Medicine

2:00 pm – 3:30 pm

Av. Viger

Panel

**Incivility in Academic Medicine: Incidence, Instigators and Impact**

Moderated by Maya Hastie, MD, Columbia University Medical Center

**Defining "Incivility" in Medicine**

Qi Cui Ott, MD, Beth Israel Deaconess Medical Center

**Sources of Incivility in Medicine**

Maya Hastie, MD, Columbia University Medical Center

**Impact of Incivility in the Workplace**

Harriet W. Hopf, MD, University of Utah Health Care

**Managing Incivility: The Art and Science**

Jonathan Hastie, MD, Columbia University Medical Center

2:00 pm – 4:00 pm

Av. Laurier

Symposium

**Organ Protection during the Perioperative Period**

Moderated by Holger K. Eltzschig, MD, PhD, McGovern Medical School, University of Texas

**Introduction**

Jean-Francois Pittet, MD, University of Alabama at Birmingham

**Novel Therapeutic Concepts for Acute Respiratory Distress Syndrome**

Holger K. Eltzschig, MD, PhD, McGovern Medical School, University of Texas

**Cardioprotection during the Perioperative Period**

Mansoureh Eghbali, PhD, University of California, Los Angeles David Geffen School of Medicine

**Hepatic Ischemia and Reperfusion Injury**

Simon C. Robson, MD, Harvard Medical School

**Perioperative Kidney Protection**

Alexander Zarbock, MD, University Hospital Münster

2:00 pm – 4:00 pm

Av. Van-Horne

Innovative Session

**Practical Lessons from Over 25-Years of Work in TIVA & Anesthetic Clinical Pharmacology**

Moderated by Dhanesh Kumar Gupta, MD, Duke University School of Medicine  
Talmage Dan Egan, MD, University of Utah

3:30 pm – 4:00 pm

Break

4:00 pm – 4:45 pm

Av. Duluth

Review Course Lecture

**Emergency General Surgery, the Elderly and Non-Beneficial Surgery: The Problems, Solutions and Outcomes**

Host: Gebhard Wagener, MD, Columbia University Medical Center

Speakers: Nial Quiney, MBBS, FRCA, Royal Surrey County Hospital Anaesthetics

Geeta Aggarwal, MBBS, MRCP, FRCA, Royal Surrey County Hospital Anaesthetics

4:00 pm – 5:30 pm

Agora / Centre-Ville



eSAS Panel

**Update and Primer on New Techniques in Basic Science Anesthesia Research (Optogenetics, CRISPR Cas-9, and Next-Gen Sequencing)**

Moderated by Vivianne Tawfik, MD, PhD, Stanford University School of Medicine



**Optogenetic and Viral Tools for Identification and Manipulation of Neural Circuits**

*Aaron Norris, MD, PhD, Washington University School of Medicine*

**Next-Generation Sequencing for Understanding Cell-specific Contributions to Your Disease of Interest**

*Vivianne Tawfik, MD, PhD, Stanford University School of Medicine*

**CRISPR Cas-9 Targeted Mutations and Genetic Dissection of Neural Circuits Relevant to Hypnosis**

*Andrew McKinstry-Wu, MD, Perelman School of Medicine, University of Pennsylvania*

**6:00 pm – 7:30 pm**

**Taste of Montreal Dine-Around**

If you haven't already, be sure to pre-register for this intimate dining experience at the registration desk. Space is limited; dinner costs are the responsibility of each attendee.

**4:00 pm – 5:30 pm**

*Av. Viger*

**Panel**

**Pediatric Cardiac Anesthesia: Innovations from the Other Side of the Drape**

*Moderated by Santhanam Suresh, MD, Ann & Robert H. Lurie Children's Hospital of Chicago*

**ERAS for Pediatric Cardiac Anesthesia: Regional Anesthesia's New Turf**

*Jeremy Deer, MD, Northwestern University Feinberg School of Medicine*

**Can Neurologic Injury from Cardiac Surgery Be Prevented by Hemodynamic Optimization?**

*Ken M. Brady, MD, Lurie Children's Hospital of Chicago*

**Adult Congenital Heart Disease: A Conundrum That We All Have to Face**

*James DiNardo, MD, Boston Children's Hospital*



If you are a transplant anesthesiologists or critical care physician, join the Society for the Advancement of Transplant Anesthesia (SATA) at the Third Annual Symposium.

Registration fee is waived for SATA members; \$120 for non-members.  
Register on-site outside Av. Duluth. No CME will be provided for this session.



## 8:00 am – 8:30 am

Registration

## 8:30 am – 8:45 am

Welcome and Introduction

*Susan Mandell, MD, PhD, University of Colorado*  
*Ernesto A. Pretto, MD, University of Miami Miller School of Medicine*

## 8:45 am – 9:30 am

**Session 1: Everything Is Going to Be Faster and Better**

*Stuart McCluskey, MD, University of Toronto and University Health Network*

**Implementing ERAS and Fast Track in a Liver Transplant Program: A Road Map**

*Stephen Aniskevich, MD, Mayo Clinic*

**Standardizing Liver Transplant Anesthesia: Quality Indicators and Education**

*Dieter Adelman, MD, University of California, San Francisco School of Medicine*

## 9:30 am – 10:00 am

**Session 2: Pro/Con Debate: I Need CRRT in the Operating Room**

*Ramona Nicolau-Raducu, MD, PhD, University of Miami Miller School of Medicine*  
*Nicolette Schlichting, MD, Mount Sinai Hospital*  
*Vivienne Hannon, MBBS, University of California, San Francisco, Dept of Anesthesia*

## 10:00 am – 10:20 am

**Session 3: Case and Problem-Based Learning Discussion**

**Abdominal Transplantation**

*Cara Crouch, MD, University of Colorado Hospital*

## 10:20 am – 10:45 am

Break

## 10:45 am – 11:45 am

**Session 4: Thoracic Organs**

*Andrea Miltiades, MD, Columbia University Medical Center*

**Combined Abdominal and Thoracic Transplants**

*Barbara Wilkey, MD, University of Colorado*  
*Benjamin Abrams, MD, University of Colorado Hospital*

**Combined Abdominal and Thoracic Transplants**

*Yoshihisa Morita, MD, Henry Ford Hospital*

## 12:00 pm – 12:15 pm

**Session 5: What's New in Transplant Anesthesiology?**

*Geraldine Diaz, DO, University of Chicago Medical Center*

## 12:15 pm – 12:30 pm

Closing Remarks

*Gebhard Wagener, MD, Columbia University Medical Center*

# IARS POSTERS



# IARS

International Anesthesia Research Society



## 111 POSTER SESSIONS: IARS (D-F)

All poster sessions, the Poster Information desk, and the Call4Posters™ desk are located in the Place du Canada and Square Dorchester Rooms.

IARS Poster Sessions are grouped based on subspecialty topic and will include an open poster viewing time and a poster presentation session.

### IARS POSTER SESSION D: SATURDAY, MAY 19

7:30 am – 8:00 am	Setup
8:00 am – 5:00 pm	Open Viewing
1:00 pm – 2:30 pm	Poster Session
5:00 pm – 5:30 pm	Breakdown

### IARS POSTER SESSION E: SUNDAY, MAY 19

7:30 am – 8:00 am	Setup
8:00 am – 5:00 pm	Open Viewing
12:30 pm – 2:00 pm	Poster Session
5:00 pm – 5:30 pm	Breakdown

### IARS POSTER SESSION F: MONDAY, MAY 20

7:30 am – 8:00 am	Setup
8:00 am – 5:00 pm	Open Viewing
12:30 pm – 2:00 pm	Poster Session
5:00 pm – 5:30 pm	Breakdown

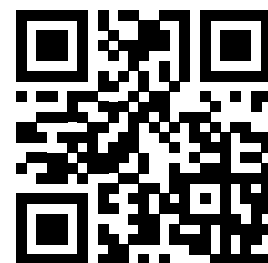
#### Viewing e-Posters

e-Posters are available for viewing throughout the Annual Meetings at <http://tiny.cc/lr3l5y>.

#### Call4Posters™ Pick-up

Orders placed through Call4Posters™ will be available for pick-up at the Call4Posters™ Desk.

Thursday, May 16	7:00 am – 1:30 pm
Friday, May 17	7:00 am – 1:30 pm
Saturday, May 18	7:30 am – 2:00 pm
Sunday, May 19	7:30 am – 2:00 pm
Monday, May 20	7:30 am – 10:00 am



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Cardiovascular Anesthesiology	D22-31, E32-37, F23-34
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Sleep Medicine	D186-190, E195, F195-196
Technology, Computing and Simulation, Equipment Monitoring	D191-203, E196-204, F197-205
Trauma	D204-209, E205-209

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**D1. Chronic Inhibition of Acetylcholinesterase (AChE) Attenuates in Vivo Airway Hyperreactivity and Lung Inflammation in a Model of Murine Asthma**

*Claudia Bruguera, Roman Schumann, Dana Arekat, Natalia Stamas, John Adam Reich, David Moss, Edward Hong, Jacob Ludington, Andrea Tsai*

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**D2. Posterior Tracheal Diverticulum in a Right Lung Transplant**

*Patrick Hussey, Taylor Johnston, Joseph Pena, Andrea N Miltiades*

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**D3. Induction of Endothelial Barrier Dysfunction by Serum Factors of Traumatic Brain Injury in Rats**

*Yunbo Ke, Julie Proctor, Juliana Medina, Catriona Miller, Junghyun Kim, Anna Birukova, Gary Fiskum, Konstantin Birukov*

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**D4. Left Molar Approach Intubation for a Complex Emergency Airway in a Patient with Achondroplasia and Known Difficult Airway**

*Adrianne Lazer, Sergio B. Navarrete, Brian Cocchiola*

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**D5. Laryngeal Mask Airway with An In-Built Endotracheal Tube**

*Sridhar R. Musuku, Neil Mathur, Susan L. Herrick, Divya Cherukupalli*

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**D6. Do the Changes in the Amount of Lubrication and Temperature Affect the Inhibitory Effects of Lubrication on the Increase in the Endotracheal Tube Cuff Pressure during Nitrous Oxide Exposure in Vitro?**

*Hiroyuki Oshika, Yukihide Koyama, Tomio Andoh*

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**D7. Protecting the Airway and Physician: Lessons from 214 Cases of Endotracheal Intubation Litigation**

*Andrea Perales, Molly Amin, Anna Korban, Peter Svider, Jean A. Eloy, Jean Daniel Eloy*

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**D8. Dexmedetomidine for the Prevention of Fentanyl - Induced Cough in Patients Undergoing General Anesthesia: A Double-Blind Randomized and Placebo Controlled Study**

*Alia S. Dabbous, Mabelle C. Baissari, Mayyas M. Msheik, Patricia W. Nehme, Samar K. Taha*

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**D9. High Rates of Postoperative Opioid Overprescription Following Ambulatory Breast Surgery**

*Anjali Dixit, Solmaz P. Manuel, Christina Inglis-Arkell*

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**D10. Dexmedetomidine vs Midazolam for Medical Thoracoscopy-Randomized, Noninferiority Trial**

*Vinod Kumar, Prashant Sirohiya, Nishkarsh Gupta, Rakesh Garg, Sachidanand Jee Bharti, Karan Madan, Seema Misra, Sushma Bhatnagar, Vijay Hadda, Anant Mohan*

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**D11. Reasons for Postoperative Inpatient Admissions after Ambulatory Surgery: A Single Center Retrospective Study**

*Singh Nair, Singh Nair, David Bennett, David Adams, Akshay Bhatt, Curtis Choice*

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**D12. Should Laboratory Tests Be Obtained Before Outpatient Gastrointestinal Endoscopic Procedures in Cancer Patients?**

*Linh Nguyen, Katherine Hagan, Shannon Hancher-Hodges, Piotr Kwater, Laura Rubin, Shrini K. Parikh, Juan Cata*

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**D13. Outcomes after Laparoscopic Cholecystectomy: Does the Surgical Setting Matter?**

*Eric Rosero, Girish P. Joshi*

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**D14. Total Intravenous Anesthesia with a Novel Formulation of Isoflurane Perfluorocarbon-Based Nano-Emulsion: Safety, Efficacy and Toxicity in Dogs**

*Behrouz Ashrafi, Ernesto A. Pretto, Christopher A. Fraker*

*Kosaka Best of Meeting Award Finalist - Basic Science Research*

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**D15. Anesthetic Sensitivities in the Zebrafish**

*Victoria Bedell, Jayce Breig, Micheal A. Pack, Max B. Kelz, Roderic G. Eckenhoff*

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**D16. Effect of Propofol on in Vitro Functions of Breast Cancer Cell Lines**

*Zhaosheng Jin, Ru Li, Yujie Huang, Jun Lin*

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**D17. Effect of Sevoflurane and Propofol on the Phenotype of Lung Cancer Cell in Vitro, Preliminary Findings**

*Zhaosheng Jin, Ru Li, Michelle Jaromy, Hengrui Liu, Jun Lin*

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**D18. Mixtures of General Anesthetics Act Synergistically Only If They Act on Different Binding Sites on Synaptic GABA<sub>A</sub> Receptors: A Study in Tadpoles**

*Daniel Kent, Keith W. Miller*

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**D19. Effects of Incubating Packed Red Blood Cells with Common Infusion Crystalloids and Medications on Red Blood Cell Lysis, Aggregation and Deformability**

*Domagoj Mladinov, Kristine Yarnoff, Enika Nagababu, Dan Berkowitz, Courtney Lawrence, Paul Ness, Thomas Kickler, Patricia Brunker, Joan Boyd, Jeffrey Dodd-O*

*Kosaka Best of Meeting Award Top Finalist - Clinical Research*

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**D20. Derivation of Formula for Average Hematocrit Under Isovolemic Conditions**

*Thomas M. Austin, Brett S. Escarza, Chris Fiedorek, Michael Fiedorek, Susana Cruz Beltran, Humphrey Lam*

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**D21. Platelet Functionality Is Decreased after Infusion through a Rapid Infusion System**

*Shahrukh Bengali, Ilan Keidan, Nikolaus Gravenstein, Jeffrey D. White, Joshua Sappenfield*

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**D22. Novel Circulating Metabolic Markers Improve Discrimination of Metabolic Health Independent of Weight**

*Stephen Ellison, Lydia Kwee, Nathan Bihlmeyer, James Bain, Damian Craig, William Kraus, Svati Shah*

*Kosaka Best of Meeting Award Finalist - Scholars*

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**D23. Ventilator-Induced Lung Injury in a Rat Model of Pulmonary Fibrosis Is Influenced by Disease Severity and Tidal Volume**

*Khoa Nguyen, Chris Ortiz, Trixie Le, Mansoureh Eghbali, Nir Hoftman, Soban Umar*

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**D24. Milrinone Decreases Late Apoptosis in H9C2 Cardiomyocytes through a Non-Dependent ATP Pathway**

*Jose V. Montoya-Gacharna, June Rim, Sachin Gupte*

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**D25. Intraventricular Pressure Difference Assessment from Color M-Mode Image using Transesophageal Echocardiography**

*Koichi Akiyama, Isaac Wu, Eric J. Stöhr, Aaron Mittel, Ruiping Ji, Keiichi Itatani, Yasufumi Nakajima, Atsushi Kainuma, Teiji Sawa, Hiroo Takayama*

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**D26. Higher Qp/Qs Ratio Is Associated with Lower Cerebral rSO<sub>2</sub> in Patients with Ventricular Septal Defect**

*Aya Banno, Tomoyuki Kanazawa, Kazuyoshi Shimizu, Tatsuo Iwasaki, Hiroshi Morimatsu*

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**D27. Factor VIII Inhibitor Bypass Activity (FEIBA) for the Reduction of Transfusion in Cardiac Surgery: A Randomized Double Blind Placebo Controlled Pilot Trial**

*Ann Bingham, Valerie Sera, Howard Song, Victor Rodriguez, Jaishankar Raman, Frederick Tibayan, Miriam Treggiari*

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**D28. Preoperative Radial Artery Diameter Can Help Predict Radial-To-Femoral Pressure Gradient and Vasoactive Agent Requirements**

*Vincent Bouchard-Dechene, Andre Denault, Alain Deschamps, Pierre Couture, Philippe Pérusse, Georges Desjardins*

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**D29. Post-Burn Malnutrition and Associated Cardiomyopathy**

*Michelle Grata, Alexis Mcquitty, Nikul Patel, Frances Brown*

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**D30. Correlation of Bi-Spectral Index with End-Tidal Anesthetic Concentration and Body Temperature during Off-Pump CABG**

*Muralidhar Kanchi, Priya Nair, Manjunath Udresh, Kumar G. Belani*

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**D31. Large Right Ventricular Outflow Tract Tumor: Anesthetic Management and Evaluation by Transesophageal Echocardiography**

*Brad P. Moore, Steven Miller*

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**D32. Bacterial Sepsis Increases Fibrillary Amyloid Load and Neuroinflammation in a Mouse Model of Alzheimer's Disease Pathology**

*Jacob Basak, Collin J. Nadarajah, Lucy S. Cohen, Patrick W. Sheehan, Erik S. Musiek*  
*Kosaka Best of Meeting Award Top Finalist - Scholars*

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**D33. Therapeutic Effects of High Molecular Weight Hyaluronic Acid in Ex Vivo Perfused Marginal Human Lungs Injured with Pseudomonas Aeruginosa**

*Shinji Sugita, Xiwen Zhang, Yoshifumi Naito, Li Zhou, Qi Hao, Michael Matthay, Jae Woo Lee*  
*Kosaka Best of Meeting Award Top Finalist - Scholars*

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**D34. Hyperoxic Resuscitation Following Canine Cardiac Arrest Increases Cerebellar Purkinje Neuronal Damage and Inflammatory Microglial Activation**

*Gary Fiskum, Da Lee, Julie Proctor, Robert E. Rosenthal*  
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**D35. Therapeutic Effects of Hyaluronic Acid in *E. coli* Bacterial Pneumonia in the Ex Vivo Perfused Human Lungs**

*Jae-Woo Lee, Airan Liu, Jeonghyun Park, Xiwen Zhang, Shinji Sugita, Jaehoon Lee, Hideya Kato, Qi Hao, Michael Matthey*

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**D36. A Systems Immunology Approach to Characterize Lung Immune Response to Hyperoxia**

*Dusan Hanidziar, Yasutaka Nakahori, David Gallo, Joshua Keegan, Jennifer Nguyen, Leo Otterbein, James Lederer, Simon C Robson*

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**D37. The Role of miR-147 in Acute Respiratory Distress Syndrome**

*Nathaniel K. Berg, Xiaoyi Yuan, Yanyu Wang, Holger K. Eltzschig*

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**D38. Rotational Thromboelastometry Is More Predictive of Mortality in Traumatic Brain Injury Than Conventional Coagulation Testing**

*Daniel Bingham, John R. Taylor, William C. Beck, Kevin W. Sexton, Benjamin J. Davis, Avi Bhavaraju, Mary K. Kimbrough, Anna Privratsky, Ronald D. Robertson, Donald E. Crabtree*

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**D39. Adverse Outcomes Associated with Absent or Delayed  $\beta$ -Blocker Administration after Cardiac Surgery**

*Emily Chanan, Germaine Cuff, Samir Kendale, Aubrey Galloway, Mark Nunnally*

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**D40. Meta-Analysis of Lipid Emulsion Therapy in Animal Models Demonstrates Pig-Dependent Bias**

*Michael R. Fettiplace*

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**D41. Utilizing Surgical Embolectomy for Acute Massive Pulmonary Embolism**

*Adam Freilich, Jayanta Mukherji, Kimberly Burcar*

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**D42. The Attributable Mortality from Bleeding Complications Exceeds the Attributable Mortality from Thrombotic Complications**

*Robert E. Freundlich, Melissa L. Bellomy, Milo Engoren, Frederick W. Lombard, Barbara J. Martin, Yaping Shi, Matthew Shotwell*

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**D43. Magnesium Sulfate Significantly Alleviates the Development of Right Ventricular Dysfunction in Monocrotaline-Treated Rats**

*Chun-Jen Huang*

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**D44. Modifiable Risk Factors of Prolonged Dependence on Vasopressors after Cardiac Surgery: A Retrospective Cohort Study**

*Loay Kontar, William B. Souligny, Vincent Bouchard-Dechêne, Antoine Rochon, Sylvie Levesque, Matthias Jacquet-Lagrèze, Yoan Lamarche, Denis Babin, André Denault*

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**D45. Trends in Tracheostomy Utilization after Severe Acute Brain Injury in the United States**

*Vijay Krishnamoorthy, Monica S. Vavilala, Abhijit V. Lele, Karthik Raghunathan, Claire Creutzfeldt*

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**D46. Incidence and Diagnoses of 'Short-Stay' Critical Care Admissions from the Emergency Department**  
*Layne Madden, Deepa Patel, Mengyu Di, Justin Schrager*

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**D47. Spontaneous Esophageal Rupture with Stridor after Partial Resection of the Right Lung**  
*Yuto Matsuoka, Ryu Nakamura, Kazuyoshi Shimizu, Naoto Tomotsuka, Yohei Takano, Akira Katayama, Hiroshi Morimatsu*

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**D48. In Hospital Mortality, Complications, and ICU Length of Stay after Ventricular Assist Device Implantation: A Single Center Case Review**  
*Rachael Mintz-Cole, Andrea Yoder, Abdulaziz Almehlis, Kimberly S. Robbins, Albert P. Nguyen, Ulrich Schmidt*

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**D49. Role of Syndecan-1 and Disruption of Glycocalyx in Critically Ill Patients with Ventricular Assist Devices (VAD) and Extracorporeal Membrane Oxygenation (ECMO)**  
*Dorothea Rosenberger, T. Mckai Wood*

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**D50. Gut Microbiome Short-Chain Fatty Acid Levels Can Regulate Lung Inflammatory Responses in Mice**  
*Xiaoli Tian, Judith Hellman, Arun Prakash*

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**D51. Massive Tongue Swelling Preventing Extubation**  
*Thanh-Giang Vu, Jeffrey Gotts*

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**D52. Low-Cost ECMO Troubleshooting Simulation Improves Provider Confidence and Preparedness in Managing Life-Threatening Circuit Complications**  
*Matthew Wiepking, Michael Stentz, Kiley Hodge*

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**D53. Lipid Emulsion Containing Omega3 (N3) Fatty Acids Beneficially Affect Insulin Signaling and Glucose Uptake in the Beating Rat Heart**  
*Michael Zaugg, Phing-How Lou, Eliana Lucchinetti, Alexander S. Clanachan*

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**D54. Assessing the Readability of Anesthesia-Related Patient Education Materials**  
*Raksha Bangalore, Anna Korban, Faraz Chaudhry, Jean Daniel Eloy*

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**D55. Individualized Resident Physician Feedback Decreases Intraoperative Hypotensive Events**  
*Sunny Chiao, Katherine Forkin, Bhiken Naik, Marcel Durieux*

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**D56. Project Pandemic: Efficient and Effective Teamwork and Communication Skills Training using a Tabletop Game**  
*Cullen Jackson, Cindy Ku, John D Mitchell, Vanessa Wong, Carol A Diachun*

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**D57. Geography and Program Reputation Are Key Factors That Influence Residency Match**  
*Jung Kim, William Kim, Germaine Cuff, Michael Wajda, James M. McKeever*

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**D58. The Ontology of Leadership: A Simulation-Based Introduction**  
*Annandita Kumar, Philip Boysen*

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**D59. Representation of Women on the Editorial Board of the *Canadian Journal of Anesthesia***  
*Gianni R. Lorello, Alana Flexman*

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**D60. Impact of Anesthesia Type on Patient Satisfaction with Anesthesia Care**  
*Anastasia Pozdnyakova, Avery Tung, Richard Dutton, Anum Wazir, David Glick*

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**D61. Economic Evaluations of Sugammadex for Reversal of Neuromuscular Block in Surgical Procedures: A Systematic Review**  
*Amit D. Raval, Ishita Doshi, Sumesh Kachroo, Lori D. Bash*

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**D62. Resident Physician Perspective on Women As Leaders**  
*Karlyndsay Sitterley, Philip Boysen, Joseph Koveleskie*

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**D63. Cognitive Resilience: Predicting a Robust Cognitive Status after Major Non-Cardiac Surgery**  
*Christopher G. Choukalas, Christopher Tang, Laura Sands, Yueyao Wang, Sanam Tabatabai, Devon Pleasants, Jacqueline Leung*

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**D64. Postoperative Delirium after Major Cardiac Surgery Is Associated with High Protein Levels of TIMP-1 and IL-6**  
*Jennifer Mekonnen, Breanna Ethridge, Reine Ibala, Eunice Hahm, Jacob Gitlin, Jason Z. Qu, Oluwaseun Johnson-Akeju*

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**D65. Depth of Sedation as an Interventional Target to Reduce Postoperative Delirium: Mortality and Functional Outcomes of the Stride Randomized Clinical Trial**  
*Frederick Sieber, Karin Neufeld, Allan Gottschalk, George Bigelow, Esther Oh, Jean Pierre Ouanes, Naeyuh Wang*

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**D66. Beers Criteria in the Perioperative Period: Incidence of Perioperative Diphenhydramine, Midazolam and Scopolamine Use in Elderly Surgical Patients**  
*Audrey E. Spelde, Gurmukh Sahota, Lee A. Fleisher, Sushila Murthy*

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**D67. The "Just Right" Amount of Oxygen: Reducing Hypoxemia and Hyperoxia in a Rwandan Emergency Department**  
*Tori Sutherland, Victor Moriau, Lise Kabeja, Theogene Twagirimugabe, Daniel S. Talmor, Elisabeth D. Riviello*

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**D68. Effects of Intraoperative Fluid Management on Postoperative Acute Kidney Injury in Liver Transplantation: A Retrospective Cohort Study**  
*François M. Carrier, Michaël Chassé, Martin Girard, Luc Massicotte, Marc Bilodeau*

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**D69. Goal-Directed Fluid Therapy Versus Low Central Venous Pressure Strategy during Major Liver Resections (GALILEO): A Patient and Surgeon-Blinded Randomized Controlled Trial**  
*Iris M. Jongerius, Timothy Mungroop, Zehra Uz, Bart F. Geerts, Rogier V Immink, Martin V. Rutten, Thomas M. Van Gulik, Marc G. Besselink, Markus W. Hollmann, Denise P. Veelo*

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**D70. Hemodynamic Changes with Autologous Flushing of Donor Graft during Orthotopic Liver Transplantation**  
*Susan A. Smith, Tim Ziethen, Gabrielle Frisenda, Dennis Sonnier, John Seal, Ari Cohen, Bobby D Nossaman*

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**D71. The Role of Sarcopenia and Frailty in Predicting Outcomes in Orthotopic Liver Transplantation**

*Susan A. Smith, Richard Tupler, Nick Morrazzo, Ritika Johal, Gabrielle Frisenda, Bobby D. Nossaman, Elizabeth Cohen, Daniel Canter*

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**D72. Peep Titration via Esophageal Balloon Monitoring in a Super Morbidly Obese Patient during a Robotic Radical Nephrectomy**

*Nicholas Alvey, Maung Hlaing, Jerome Piccoli, Janet Kukreja, Naveen Kukreja, Tim Tran*

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**D73. Critical Care Management of Culture Negative Endocarditis Due to Bartonella**

*Christian S. Balabanoff Acosta, Daniela De Lima Corvino, Anmary Fernandez Betances, Rafael Arciniegas Flores, Srikar Jonna, Anna M. Schuerner, Richard A. Zack-Guasp, Ricardo Martinez Ruiz, Miguel Cobas, Alexander C. Fort*

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**D74. Veno-Venous Extracorporeal Membrane Oxygenation Used to Bridge the Obtainment of an Emergent Airway**

*Christian S. Balabanoff Acosta, Ilya Shnaydman, Saskya Byerly, Rafael Arciniegas Flores, Anna M. Schuerner, Srikar Jonna, Richard A. Zack-Guasp, Arnaldo Vera-Arroyo, Jack Louro*

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**D75. Successful Treatment of a Patient Who Developed Propofol-Induced Neuroexcitation with Intravenous Lipid Emulsion**

*Sylviana Barsoum, Adeline Kim, James Tse*

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**D76. Use of Remifentanyl for Monitored Anesthesia Care Involving a Patient with Severe Valvular Disease**

*Jennifer Davis, Stephen T. Krazit*

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**D77. A Prostate for an Eye: Preventing Major Comorbidity through Careful Preoperative Evaluation**

*Derek Djavaheerian, Sachin Jha*

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**D78. Acute Intrathecal Opioid Pump Malfunction with No Symptoms of Withdrawal**

*Ahmed Embabi, Amr Hegazi*

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**D79. Successful Multidisciplinary Anesthetic Management of a Pediatric Patient with Congenital Fiber Type Disproportion Myopathy, Congenital Scoliosis and Severely Diminished Pulmonary Function**

*Adam Forshaw, J. Matthew Kynes, John Meyer*

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**D80. An Accidental Intrathecal Baclofen Overdose Resulting in Altered Mental Status and Hemodynamic Instability in a Pediatric Patient**

*Aimee Gasior Bejar*

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**D81. Rapid Detection and Transport by ECMO Team Improved Outcomes of Severe Acute Pancreatitis Sequelae**

*Mariana Gomez, Natan Hekmatjah, Paul Helland, Cecilia Canales, Vadim Gudzenko, Sumit Singh*

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**D82. Carcinoid Crisis Presenting As Severe Bronchospasm during Anesthetic Induction in a Pregnant Patient**

*Kyung Ji, Jennifer Macpherson, Tichaendepi Mundangepfupfu*

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**D83. Anesthetic Management of Metastatic Chondrosarcoma to the Right Atrium in the Setting of a Right-To-Left Intracardiac Shunt**

*Daryl Kerr, Avanthi Tudor, Mary Rhee*

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**D84. Acute Heart Failure Related to Carbon Monoxide Intoxication: A Case Report**

*Michael Kim, Christian Zanza, Yaroslava Longhitano, Jack Berger, Francesco Franceschi*

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**D85. Cannabinoid Hyperemesis Syndrome in the Ambulatory Setting: A Case Report**

*Peter Lam, Dhamodaran Palaniappan*

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**D86. Iatrogenic Intrahepatic Thoracostomy Tube in the Intensive Care Unit**

*Jeremy V. Laney, Shihab Sugeir*

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**D87. Assessment of Hemopericardium after Transcatheter Aortic Valve Replacement**

*Danielle Lovett-Carter, Maurice F. Joyce*

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**D88. Secondary Ultrasound Use in a Post-Operative Patient with Hypotension**

*Rebecca Martinez, Julia B. Sobol, Albert Yen, Oliver Panzer*

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**D89. Wrong Place, Right Time: Avalon Catheter Migration and Point of Care Ultrasound**

*Keleigh McLaughlin, Tim Tran*

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**D90. Myotonic Dystrophy Diagnosed by Respiratory Distress after General Anesthesia: A Case Report**

*Yusuke Mizobuchi, Yoshikazu Matsuoka, Makiko Tani, Kazuyoshi Shimizu, Motomu Kobayashi, Hiroshi Morimatsu*

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**D91. Regional Anesthesia Considerations for a Multigravid Patient with Pectus Excavatum Undergoing Elective Repeat Cesarean Section**

*John D. Ngo, Rovnat Babazade*

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**D92. Perioperative Management of Pediatric Rohhad-Net Syndrome for Paraganglioma Removal: A Case Report**

*Elizabeth O'Brien, Matthew Hoyt, Michael Baker*

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**D93. Anesthetic Management in the Resection of Giant Retroperitoneal Liposarcoma**

*Ergit Paparisto, Peter Roffey*

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**D94. A Rare Case of Plastic Bronchitis in an Adult Patient: Anesthetic Challenge**

*Yangseon Park, Max B. Kelz*

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**D95. Rare Complication of "Denver" Peritoneovenous Shunt, Clinically Reminiscent of Anaphylactoid Syndrome of Pregnancy**

*Rishi Patel, Sergio B. Navarrete, Michael Fowler, Ronsard Daniel*

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**D96. Mast Cell Activation Syndrome in a Patient Undergoing Arthroscopic Repair of an Unstable Left Shoulder**

*Takashi Sakano, Bahaa Daoud, Jennifer Danielsson*

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**D97. Spontaneous Hemopericardium with Fatal Tamponade Physiology in ESRD Patient on Warfarin**  
*Melina Shoni, Gerardo Rodriguez*

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**D98. Patient Behavior in PACU after Uneventful EDG: This Seems Odd!**  
*Paul A. Sloan*

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**D99. Emergency Anesthetic Considerations of a Patient with Stiff Person Syndrome**  
*Lisa To*

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**D100. Dexmedetomidine Use in a Patient with a History of Acute Intermittent Porphyrria Undergoing Abdominal Resection of a Neuroendocrine Tumor**  
*Bradley Withers, Annette Rebel*

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**D101. A Rare Case of Repeated Interventions for Idiopathic Congenital Mitral Valve Stenosis: A Case Report**  
*Tsubasa Yoshida, Hiroki Omiya, Kenji Uehara, Waso Fujinaka, Makoto Takatori*

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**D102. Hemoconcentration as an Indicator of Intraoperative Superior Mesenteric Vein Stenosis during Pancreaticoduodenectomy**  
*Masha Zeltsman, Madina Gerasimov, Judith Aronsohn, Jeffrey Deygoo*

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**D103. GFAP Expression in the Visual Cortex Is Increased in Juvenile Non-Human Primates That Were Exposed to Anesthesia during Infancy**  
*Viola Neudecker, Jose F. Perez-Zoghbi, Marjorie Grafe, Ansgar Brambrink*  
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**D104. The INTUIT Study: Investigating Neuroinflammation Underlying Postoperative Neurocognitive Dysfunction and Delirium in Older Adults**  
*Thomas Bunning, Heather E. Whitson, Kent Weinhold, Marty G. Woldorff, Eugene Moretti, Deborah Oyeyemi, Mary Cooter, Cliburn Chan, Roberto Cabeza, Jeffrey N. Browndyke, David Murdoch, Michael Devinney, Leslie Shaw, Harvey J. Cohen, Joseph P. Mathew, Miles Berger*  
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**D105. The Left Angular Gyrus and Dorsal Anterior Cingulate Cortex: Key Regions for Pre-Post Operative Functional Resting State Decline?**  
*Cheshire Hardcastle, Hua Huang, Jared J. Tanner, Hari K. Parvataneni, Mingzhou Ding, Catherine Price*  
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**D106. Imaging Cortical Activity during General Anesthesia: Insights into Cortical Pain Processing in Mice**  
*Jarret Weinrich, Allan Basbaum, Mollie Bernstein*  
*Kosaka Best of Meeting Award Finalist - Scholars*

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**D107. Dexmedetomidine Prevents Lipopolysaccharide (LPS)-Induced Neuroinflammation and Cognitive Decline through An  $\alpha$ 2A Adrenoceptor Mechanism in Mice**  
*Mervyn Maze, Rong N. Li, Kit I Lai*  
*Kosaka Best of Meeting Award Finalist - Basic Science Research*

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**D108. Central Venous Catheter Placement Has No Impact on Venous Air Embolism Severity, Duration or Morbidity in Seated Cervical Laminectomy Patients**

*Arnoley Abcejo, Jeffrey J. Pasternak, Jamie J. Van Gompel, John Atkinson, William J. Perkins*

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**D109. A Novel Evoked Two EEG Complementary Indices for Identifying Stroke and Evaluating the Potential for Salvageable Brain Tissue in Patients Under Anesthesia**

*Dana Baron Shahaf, Gregory Hare, Eitan Abergel, Rotem Sivan-Hofman, Goded Shahaf*

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**D110. Considerations for Individuals with Parkinson's Disease: Basal Nucleus of Meynert Resting State Connectivity Associates with Executive Deficits**

*Sam J. Crowley, Katie Rodriguez, Jared J. Tanner, Mingzhou Ding, Catherine Price*

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**D111. Intraoperative Electroencephalogram Suppression Mediates the Relationship Between a Preoperative "Vulnerable Brain" Phenotype and Postoperative Delirium**

*Bradley A. Fritz, Christopher R. King, Nan Lin, Arbi Ben Abdallah, Michael Avidan*

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**D112. Low Alpha Power from Electroencephalographic Activity Is Associated with the Development of Acute Confusional State**

*Rodrigo Gutiérrez, Jose Ignacio Egana, Ivan Saez, Fernando Reyes, Constanza Briceno, Mariana Venegas, Isidora Lavado, Antonello Penna*

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**D113. Mind the Gap: Using the Electroencephalogram (EEG) to Uncover Potential Emergence during Cardiac Surgery**

*Darren F. Hight, Markus M. Luedi, David Reineke, Balthasar Eberle, Heiko Kaiser*

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**D114. Correlation Between Cognitive Deficits and Amyloid-Load Independent of Sex or Anesthesia in a Mouse Model of Alzheimer's Disease**

*Christoph Pötzl, Laura C. Preis, Sebastian Schmid, Manfred Blobner, Gerhard Schneider, Bettina Jungwirth*

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**D115. Isoflurane and Xenon Reserve the Effect of A $\beta$ 1-42 on MEGF10-Dependent Synapse Elimination by Astrocyte**

*Gerhard Rammes, Dai Shi, Tatjana Neumüller, Francisca Seeser, Kaichuan Zhu, Jochen Herms*

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**D116. Dexmedetomidine Causes Age-Dependent Differences in the EEG Compared to NREM Sleep in B6 Mice**

*Morgan Siegmann, Daniel Zachs, Jonathan Kenny, Mohsen Hozan, Matthew Wilson, Emery N. Brown, Christa J. Van Dort*

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**D117. Ventilator Mode Does Not Influence Blood Loss or Transfusion Requirements during Major Spine Surgery: A Retrospective Study**

*Priyanka Singla, Davis G. Taylor, Ching-Jen Chen, Lucas Fernandez, Christopher Wiedle, Mark Hanak, Siny Tsang, Edward C. Nemergut, Marcel Durieux, Randal Blank, Bhiken Naik, Lauren K. Dunn*

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**D118. Evaluation of the Effect of Implementation of Enhanced Recovery after Surgery Program in Spinal Surgical Procedures (MSDRG S454 and S455): A Retrospective Study**

*Jun Tang, Steve Sun, Zhaoyi Tang, Stephan Yang, Jun Tang, Alexandre Rasouli, Tiffany G. Perry, Sang D. Kim, Julian Gold, Harry Sax, Roya Yumul, Jeff Smith, Bryan Croft, Kristoffer Thordarson, Eric Robertsen, Rachel Fridman*

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**D119. The Lower Limits of Neonatal Cerebral Autoregulation during Congenital Cardiac Surgery**

*Eric L. Vu, Brendan L. Smith, Craig G. Rusin, R. B. Easley, Dean Andropoulos, Ken M. Brady*

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**D120. Understanding Functional Connectivity Contributions to Digital Cognitive Pre-Operative Screening Tests: The Digital Maze (dMaze)**

*Margaret Wiggins, Catherine Dion, Cheshire Hardcastle, Hua Huang, Jared J. Tanner, Penney Dana, Randall Davis, Mingzhou Ding, Catherine Price*

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**D121. Contingency Planning to Overcome Critical Shortages of Hyperbaric Bupivacaine for Obstetric Anesthesia Care**

*Laurence Ring, Xiwen Zhang, Beatriz Raposo Corradini, Ruth Landau*  
*Kosaka Best of Meeting Award Finalist - Clinical Research*

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**D122. Acute Pulmonary Edema in a Pregnant Patient with Moyamoya Disease and Undiagnosed Mitral Regurgitation Induced by Emotional Distress**

*Indranil Chakraborty, Priya Gupta, Andrew Wright*

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**D123. A Prospective Randomized Comparison of Low Dose Ropivacaine Programmed Intermittent Epidural Bolus with Continuous Epidural Infusion for Labour Analgesia**

*Alexander Ioscovich, Yana Guseva, Oksana Ryazanova, Stanislav Aleksandrovich*

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**D124. Genetic Associations of Perinatal Pain and Depression**

*Grace Lim, Lora McClain, Lia M. Farrell, Kelsea Lasorda, David Peters*

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**D125. Usage of 'Big-Data' Analysis for Choosing the Optimal Timing of Epidural Analgesia in Primi and Multiparae in a Retrospective Electronic Medical Record (EMR) Based Study**

*Eshel A. Nir, Michal Lipschuetz, Sarah M Cohen, Joshua Guedalia, Ron Unger, Simcha Yagel*

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**D126. The Epigenetic Mechanism of Chronic Nicotine in Pain Perception in an Animal Model**

*Keith Candiotti, Yanping Zhang, Alec Sevilla, Robert Weller, Yilam F. Rodriguez Blanco*

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**D127. Biased Properties Observed with Opioid Reward and Relapse in the Presence of Incisional Injury in Mice**

*Chinwe Nwaneshiudu, Xiao You Shi, David Clark*

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**D128. Opioid Therapy Algorithm for Chronic Non-Cancer Pain Based on APS, AAPM, CDC, ASA and ASRA Guidelines and Position Statements**

*Ethan L. Chambers, Jason Lefkof, Akwasi Amponsah, Konstantinos D Sarantopoulos*  
*Kosaka Best of Meeting Award Top Finalist - Clinical Research*

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**D129. An Earlier Educational Intervention in Residents Improves Knowledge of Non-Opioid Acute Pain Management in the In-Patient Hospital Setting**

*Harpreet Dhiman, Jennifer Knuth, Melissa Ehlers, Anthony Ocon, Yi Zhou, Henry Nagle, Ravneet Bhullar*

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**D130. Association Between Preoperative Opioid and Benzodiazepine Use and Postoperative Outcomes in Joint Arthroplasty**

*Lisa Doan, Kristoffer Padjen, Adam Gover, Jawad Rashid, Bijan Osmani, Shirley Avraham, Samir Kendale*

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**D131. Postoperative Motivational Interviewing Based Opioid Tapering to Promote Opioid Cessation in Adults Undergoing Orthopedic Surgery: A Randomized Clinical Trial**

*Jennifer Hah, Partha Krishnamurthy, Heather Hilmoie, Ian Carroll, Sean Mackey*

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**D132. Effect of Catechol-O-Methyltransferase (rs4680) Single Nucleotide Polymorphism on Opioid Induced Hyperalgesia in Adults with Chronic Pain**

*Danqing Hu*

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**D133. Effect of Fentanyl Infusion on Postoperative Pain in Patients after Craniotomy**

*Yuki Ishii, Yuichiro Toda, Sena Hara, Hideki Nakatsuka*

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**D134. Association and Predictors of Opioid Discontinuation after Surgery Among Chronic Opioid Users in Ontario**

*Naheed Jivraj, Damon Scales, Tara Gomes, Jennifer Bethell, Andrea D. Hill, Ruxandra Pinto, Duminda N. Wijesundera, Hannah M. Wunsch*

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**D135. Social Isolation Stress Prevents Norepinephrine-Mediated Inhibition of TRPV1 Activation in Mouse Sensory Neurons**

*Loc V. Thang, Ream Al-Hasani, Jordan G. McCall*

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**D136. Sustaining the Gains: A 6 Year Follow through of the Impact of a Hospital Wide Patient Safety Strategy on Global and Anesthetic Patient Safety Outcomes**

*Ming Ann Sim, Lian Kah Ti, Sandhya Mujumdar, Sophia Chew, Mohan Kumar Bhuvaneshwari, Sophia Ang*  
*Kosaka Best of Meeting Award Top Finalist - Clinical Research*

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**D137. Patient-Reported In-Hospital Complications and Self-Reported Cognitive Function 1-Year after Surgery**

*Thomas G. Kannampallil, Amrita Aranake-Chrisinger, Noor Al-Hammadi, Michael Avidan*  
*Kosaka Best of Meeting Award Finalist - Clinical Research*

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**D138. A Microbiological Assay of Common Operating Room Tapes: Developing a Culture for Patient Safety**

*Gaurav Chauhan, Aman Upadhyay, Samvid Dwivedi, Robert J. Tibbetts*

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**D139. Improving Adherence to Intraoperative Administration of Surgical Antimicrobial Prophylaxis: A Single Center Experience**

*Victoria Haney, Stephan Maman, Jansie Prozesky, Kunal Karamchandani*

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**D140. Comparing the Incidence of Low Minute Ventilation, Low Tidal Volume and Low Respiratory Rate on the General Hospital Floor**

*Alparslan Turan, Hani Essber, Barak Cohen, David Chelnick, Jasmin Imsirovic, Wael Saasouh*

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**D141. The Use of the Federal Aviation Administration's Crew Resource Management Techniques to Identify Hazardous Attitudes in Crew Resource Management Among Anesthesiology and Surgery Residents**

*Christina R. Miller, Adam Schiavi, Robert S. Greenberg*

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**D142. Risk Factors for Acute Kidney Injury after Primary Total Correction of Coarctation of the Aorta (COA) and Transposition of the Great Arteries (TGA) in Infants: A Retrospective Cohort Study**

*Sooyoung Kim, Minjeong Jang, Jihion Yu, In-Kyung Song, Jae Moon Choi, Won-Jung Shin, Mijeung Gwak*  
*Kosaka Best of Meeting Award Finalist - Scholars*

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**D143. To Tube or Not to Tube: Laryngeal Mask Airway vs Endotracheal Tube for Airway Management During General Anesthesia in Severely Obese Children**

*Sung Choi, Olubukola O Nafiu*

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**D144. Safety of Prophylactic Antifibrinolytics in Children Undergoing Spinal Fusion**

*Lisa Eisler, Minjae Kim, Lena Sun, David Faraoni*

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**D145. Are Pediatric Patients with Phace Syndrome at High Risk for Anesthetic Complications?**

*Brett Escarza, Susana Cruz Beltran, Humphrey Lam, Thomas M. Austin*

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**D146. Identifying Unnecessary Blood Transfusions in Patients Undergoing Craniofacial Surgery using National Craniosynostosis Registry Dataset**

*Allison M. Fernandez, Lillian Zamora, Ali Jalali, Luis Ahumada, Jim Fackler, Mohamed Rehman*

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**D147. Preventing Spinal Cord Injury & Infarction in Patients with Mucopolysaccharidosis during Non-Spine Surgery**

*Jonathan Halem, Mary C. Theroux, William G. Mackenzie, Phoebe Fisher, Anthony Dinardo*

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**D148. A Neonatal Cardiac Arrest: What Could Be Happening?**

*Adnan R. Khan, Ana Crnkovic, Melissa Ehlers*

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**D149. Adenotonsillectomies in Pediatric Patients with Severe Obstructive Sleep Apnea**

*Makoto Nagoshi, Connie Mun-Price, Kathleen Than, Branden Engorn, Patrick Ross*

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**D150. Unanticipated Admissions during the Perioperative Period: Summary of Data from the Wake Up Safe**

*Thanh Nguyen, Amanda Lorinc, Humphrey Lam, Thomas M. Austin*

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**D151. Intranasal Insulin Prevents Anesthesia-Induced Cognitive Impairment in Juvenile Mice**

*Patricia Roque, Tamaki Sato, Yosuke Nakadate, Hiroaki Sato, Shelly Yin, Mehdi Hooshmandi, Linda Wykes, Arkady Khoutorsky*

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**D152. Temporal Changes in the Frequency of Intraoperative Hypotension in Children**

*Jonathan A. Sohn, Bishr Haydar, Aleda Thompson, Shobha Malviya, Olubukola O Nafiu*

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**D153. Prevention of 'Emergence Agitation' with Propofol or Fentanyl in Children Undergoing Below Umbilical Surgeries Under Sevoflurane Anaesthesia**

*Sangeet Tanwar, Sunil K Sinha*

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**D154. The Electroencephalographic Signature of Spinal Anesthesia in Infants: A Multi-Center Pilot Study**

*Emmett Whitaker, Jerry Y. Chao, Elissa Yozawitz, Alan Legatt, Gregory L. Holmes, Robert Williams*

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**D155. Functional Near-Infrared Spectroscopy (fNIRS) during Newborn Circumcisions: A Pilot Study**  
*Ian Yuan, Arjunan Ganesh, Olivia Nelson, Kurtulus Izzetoglu, Bingqing Zhang, Janell Mensinger, William Landis*

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**D156. Intravenous Cannula Placement in Children in the Operating Room for Induction of General Anesthesia: Prospective Audit and Identification of Success Factors**  
*Matthias Görges, Celine Hügel, Andrew Poznikoff, James C. Chen, Eleanor J. Reimer*

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**D157. Preoperative Gabapentinoids Increase Risk of Postoperative Opioid-Related Respiratory Depression in Adult Patients Undergoing Total Hip and Knee Arthroplasties**  
*Sean Moore, Tetsu Ohnuma, Karthik Raghunathan, John Whittle, Raquel R. Bartz, Srinivas Pyati, Alan Ellis, William E. Bryan, Marc Pepin, Vijay Krishnamoorthy*  
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**D158. Epidemiology of Surgical Site Infection in Spinal Fusion Surgery and Patterns of Discordance with Surgical Antibiotic Prophylaxis: A Retrospective Case-Level Analysis**  
*Dustin R. Long, Jeannie Chan, Chloe Bryson-Cahn, John Lynch*  
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**D159. Effects of Acetaminophen, Nsaids, Gabapentinoids and Their Combinations on the Day of Surgery in Total Hip and Knee Arthroplasties**  
*Tetsu Ohnuma, Karthik Raghunathan, Alan Ellis, John Whittle, Srinivas Pyati, William E Bryan, Marc Pepin, Raquel R. Bartz, Vijay Krishnamoorthy*  
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**D160. The Impact of Nutraceutical Pre-Habilitation and Postoperative Treatment with Ecoisapentanoic Acid (EPA) and Acetylsalicylic Acid on a Novel Animal Model of Recovery after Surgery**  
*Juan Cata, Miguel Patino Montoya, Michael Lacagnina, Ruben Agudelo-Jimenez, Imad Shureiqi, Carin Hagberg, Peter Grace*  
*Kosaka Best of Meeting Award Finalist - Basic Science Research*

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**D161. Deep Immune Profile of Preoperative Glucocorticoid Administration in Patients Undergoing Surgery**  
*Brice Gaudilliere, Edward A. Ganio, Natalie Stanley, Jakob Einhaus, Amy S. Tsai, Anthony Culos, Kristen Rumer, Ramin Fallahzadeh, Viktoria Lindberg-Larsen, Henrik Kehlet, Martin S. Angst, Nima Aghaeepour*  
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**D162. Identification of Optimal Anesthetic Depth with Sevoflurane using Different Stimuli for a Movement Free Intravenous Cannulation in Children**  
*Hassan H Al-Salmi, Nikhil Gosalia, Rashid M. Khan, Naresh K. Kaul*

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**D163. Understanding Provider Variability in the Use of Neuromuscular Blocking Agents**  
*Friederike C. Althoff, Denys Shaydenfish, Maria Silva Dias Santos Patrocinio, Xinling Xu, Timothy Houle, Matthias Eikermann*

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**D164. Incidence of Persistent Opioid Use in Children after Surgery**  
*Thomas A. Anderson, Andrew T. Ward, Beth De Souza, Ellen Wang, Daniel Miller, Nicholas Bambos*

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**D165. Intraoperative Awareness with Explicit Recall: A Patient Centered Survey-Based Cohort Study**  
*Anna Maria Bombardieri, Troy Wildes, Shagun Mathur, Andrea Soares, Anshuman Sharma, Michael Avidan*

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**D166. Systematic Review of Cognitive Screening Tests to Predict Postoperative Delirium**  
*Maria Garstka, Enoch Lam, Farrah A. Ayob, George Ho, Frances F. Chung, Jean Wong*

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**D167. Quality of Recovery in Patients with Pancreatic or Common Bile Duct Cancer Receiving Curative Surgery: Comparison with TIVA and Inhalation Anesthesia using QOR-40 Questionnaire**  
*Young Eun Joe, Chang Moo Kang, Jeong Rim Lee*

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**D168. Intraoperative Analgesia Patterns at an Academic Tertiary Medical Center during the 2018 Parenteral Opioid Shortage**  
*Richard K. Kim, Cliff Schmiesing*

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**D169. Serum Fructosamine Versus Hemoglobin A1C for Glycemic Control in Diabetic Patients Undergoing Surgery**  
*Ana C. Mavarez-Martinez, Nicoleta Stoicea, Alicia Gonzalez-Zacarias, January K. Kim, Barbara Rogers*

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**D170. Laparoscopic Specimen Bags Study**  
*Asha Mohammed, Matthew Molyneux*

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**D171. A Perioperative Education Intervention Designed to Reduce Cost and Turnover to Surgeon Time**  
*William P. Murphy, Amanda J. Williams, Prem Darji, William L. Johns, Jan Pasnak*

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**D172. Reducing Costs by Eliminating Unnecessary Preoperative Urine Cultures**  
*Sher-Lu Pai, Joan Irizarry-Alvarado, Daniela A. Haehn, Wendelyn Bosch, Walter C. Hellinger*

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**D173. A Pilot Feasibility Trial of Physical and Cognitive Prehabilitation to Improve Outcomes in Surgical Patients**  
*Kimberly Rengel, Nitin Mehdiratta, Susan Vanston, Kristin Swygert, Jim Jackson, Pratik Pandharipande, Christopher G. Hughes*

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**D174. Post-Operative Oral Oxycodone and Hydromorphone: A Comparison of Opioid Consumption and Side Effects**  
*Emily Spence, Richard Brull, Faraj Abdallah*

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**D175. Comparison of Sugammadex and Neostigmine for Reversal of Rocuronium Neuromuscular Blockade on the Incidence of Postoperative Pulmonary Complications: A Randomized Controlled Trial**  
*Brandon M. Togioka, N. David Yanez, Michael Aziz, Janna R. Higgins, Miriam Treggiari*

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**D176. Perioperative Multimodal Analgesic Regimens Decrease Hospital Length of Stay and Expedite Recovery Following Spinal Fusion Surgery**  
*Andrew Vargas, Lee-Lynn Chen, Solmaz P. Manuel, Jeremy Lieberman*

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**D177. Association Between Postoperative Myocardial Injury Phenotypes and Disability-Free-Survival in Patients Undergoing Non-Cardiac Surgery**

*Lisette Vernooij, Judith Van Waes, Michael Mckenny, Matthew Machina, Simon Feng, Duminda N Wijeyesundera, Hendrik Nathoe, Linda Peelen, Wilton Van Klei, W. Scott Beattie*

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**D178. Gabapentinoids on the Day of Colorectal Surgery Are Associated with Adverse Postoperative Respiratory Outcomes**

*Rosalie Yan, Tetsu Ohnuma, Vijay Krishnamoorthy, Alan Ellis, Neil Ray, John Hsia, Srinivas Pyati, Mihaela Stefan, William E. Bryan, Marc Pepin, Peter Lindenauer, Raquel R. Bartz, Karthik Raghunathan*

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**D179. The Transversus Thoracic Plane (TTP) Block: A Pooled Review of 748 Cases**

*Kevin W. Chung, Ying Ye, Garrett W Burnett, Christina L. Jeng*

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**D180. Continuous Iliohypogastric Nerve Catheter Infusions for Postoperative Analgesia Following Bladder Augmentation in a Child with Goldenhar Syndrome**

*Chris Denny, Sarah Hall*

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**D181. Comparison of the Image Quality of 8 Different Ultrasound Machines for Axillary and Interscalene Nerve Blocks**

*Francis Remerand, Quentin Belot, Brice Fermier, Marc Laffon*

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**D182. Title Pending**

*Suresh K. Singhal, Subhadarsini Choudhury, Kiran Preet*

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**D183. Deliberate Intraneural Injection: Where Does It Spread and How**

*Cameron Smith, Olga Nin, Richa Wardhan, Xavier Sala-Blanch, Miguel A Reina, Andre P. Boezaart*

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**D184. Discovery of a Antero-Laminar Fibrous Body That May Possibly Anchor Dura to the Lamina**

*Cameron Smith, Andre P. Boezaart, Alberto Prats-Galino, Barys Ihnatsenka, Olga Nin, Anna Server, Miguel A. Reina*

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**D185. The Use of Pterygopalatine Ganglion Block for Positional Headache and Nausea Secondary to Iatrogenic CSF Leak**

*Cameron Smith, Erik M. Helander, Andre P. Boezaart*

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**D186. Risk of Major Cardiovascular Complications after Elective Surgery in Patients with Sleep Disordered Breathing**

*Rabail Chaudhry, Colin Suen, Talha Mubashir, Jean Wong, Clodagh Ryan, Frances F. Chung*

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**D187. Sleep Disordered Breathing as an Independent Risk Factor for Post-Operative Delirium in Elective Surgical Procedures**

*Rabail Chaudhry, Enoch Lam, Greesha Padnekar, Talha Mubashir, Frances F. Chung, Jean Wong*

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**D188. The SANDMAN Study: Sleep Apnea, Neuroinflammation, and Cognitive Dysfunction Manifesting after Non-Cardiac Surgery**

*Michael Devinney, Andrew R. Spector, Jeffrey N. Browndyke, Patrick J. Smith, Jennifer Dominguez, Thomas Bunning, Mary Cooter, Joseph P. Mathew, Miles Berger*

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**D189. Obstructive Sleep Apnea Does Not Predispose to Postoperative Delirium: A Retrospective EHR Based Analysis**

*Christopher R. King, Bradley A. Fritz, Krisztina Escallier, Michael Avidan*

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**D190. Prevalence of Sleep Disordered Breathing in Chronic Non-Cancer Pain Patients on Opioid Therapy: A Systematic Review and Network Meta-Analysis**

*Mahesh Nagappa, Jean Wong, Frances F. Chung, Talha Mubashir, Nilufar Esfahanian, Joseph M. Botros, Clodagh Ryan*

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**D191. Response to Inhaled Anesthetics Measured by the Triple Variable Index Reveals Population-Specific Patterns of Intraoperative Hypotension Exposure**

*Michael P. Schnetz, Pritika Dasgupta, Douglas Landsittel, Harry Hochheiser, Keith M. Vogt, James W. Ibinson, Steven Whitehurst, Aman Mahajan, David Danks, Ata M. Kaynar*  
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**D192. The Effect of Low Dose Intra-Operative Ketamine on Closed-Loop Controlled General Anesthesia: A Randomized Controlled Equivalence Trial**

*Matthias Gorges, Klaske Van Heusden, Erin Cooke, Gabrielle Napoleone, Nicholas West, Guy A. Dumont, J. Mark Ansermino, Richard N. Merchant*  
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**D193. Poiseuille's Law Demonstration to Compare Flow Rates with Commonly Used Vascular Catheters and IV Tubing Accessories**

*Christina R. Miller, David Berman, Steven M. Frank, Adam Schiavi, Shirley Duarte*  
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**D194. Implementation of a Distributed Research Network Virtual Data Warehouse for a Multi-Center Observational Study**

*Seshadri Mudumbai, Fan Wu, Justin Chambers, Aditi Kapoor, Jennifer S. Lee, David Clark, Edward R. Mariano, Randall S. Stafford*  
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**D195. A Novel Learning Management System to Revolutionize Generation, Administration, and Assessment of Simulation-Based Medical Education**

*Scott M. Pappada, Mohammad H. Owais, Cristina Alvarado, Jeffrey Schneiderman, Douglas Brunner, Andrew Casabianca, James Hofmann, Thomas J. Papadimos*  
Kosaka Best of Meeting Award Finalist - Basic Science Research

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**D196. Cardiac Index Measurement by Pulmonary Artery Catheter, Arterial Waveform Analysis and Impedance Cardiography during Liver Transplantation**

*Mingi Ban, Bon-Nyeo Koo*

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**D197. An Intraoperative Clinical Decision Support Tool Optimizes Post-Operative Glucose Levels in Diabetic Patients**

*Chelsie J. Dietz, Robert E. Freundlich, Gen Li, Jonathan Wanderer*

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**D198. Different Responses of Healthy Humans Subjected to Lower Body Negative Pressure Induced Hypovolemia using Continuous Noninvasive Arterial Pressure Cycle Duration and Heart Rate**

*Anna-Maria E. Eid, Ayman Alian, Kirk Shelley, Mohamed Elgamal, Mohamed Eid*

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**D199. The Analysis of Pediatric EEG using Poincaré Plot after a Fast Fourier Transformation Under Sevoflurane Anesthesia**

*Kazuma Hayase, Teiji Sawa*

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**D200. Hemodynamic Compensation during Selective Fetoscopic Laser Photocoagulation using the Compensatory Reserve Index**

*David Leopold, Ryan Phillips, Cristina Wood, Nicholas Behrendt, Michael Zaretsky, Henry Galan, Steven Moulton*

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**D201. Accuracy of Spectrophotometric Hemoglobin Monitoring with Digital Nerve Block**

*Babak Mostafazadeh Davani, Reza Shariat Moharari, Pejman Pourfakhr, Farhad Etezadi, Mohammad Reza Khajavi, Atabak Najafi*

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**D202. Predicting ASA Scores using Machine Learning**

*John F. Pearson, Priya Ramaswamy, Dana Raub, Peter Santer, Matthias Eikermann*

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**D203. Prediction of Intraoperative Hypotension: Logistic Regression vs Deep Learning Methods**

*Soo Bin Yoon, Hyung-Been Yhim, Hyung-Chul Lee, Min Hur, Chul-Woo Jung*

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**D204. Regulation of Microtubule Dynamics in the HKSA-Induced Endothelial Barrier Dysfunction**

*Boyoung Cha, Junghyun Kim, Chenou Zhang, Konstantin Birukov, Anna Birukova*

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**D205. Airway Management by Anesthesiologists at Level-1 Trauma Center in the Era of Video Laryngoscopy**

*Roman Dudaryk, Jack Louro, Richard Dutton, Yvette Rodriguez, Richard H. Epstein*

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**D206. Efficacy of Tranexamic Acid Infusion in Experimental Trauma/Hemorrhagic Shock Is Dependent on Blood**

*Erik B. Kistler, Fernando Dos Santos, Joyce B. Li, Federico Aletti*

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**D207. Etomidate Is Less Frequently Used for Rapid Sequence Intubation in Pediatric Trauma Patients**

*Jack Louro, Paul Elias, Neil H. Masters, Roman Dudaryk*

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**D208. A Retrospective Review of Electrolyte Repletion during Massive Transfusion Protocol at a Level One Trauma Center**

*Christopher Potestio, Akhil Patel, Xiaolu Xu, Nadder Azzam, Talia K Ben-Jacob*

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**D209. Decreased Thrombin Inhibition with Hypothermia As Measured by Calibrated Automated Thrombography (CAT)**

*Roman Snieciński, Fania Szlam, Alexander Y. Mitrophanov, Jaques Reifman*

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**E1. Comparison of Neck Circumference to Thyromental Distance Ratio with Modified Mallampati Score for Prediction of Difficult Intubation in Obese Patients**

*Amreen M. Awan*

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**E2. Difficult Airway in Acromegaly Patient**

*Jin Chen, Risa Wolk*

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**E3. Doubling the Dose of Ketamine in Combination of Ketamine+ Dexmedetomidine Provides Lesser Discomfort and Recall of Procedure after Fiber-Optic Intubation**

*Satish Dhashmana, Arun Kumar, Sateesh Verma, Tanmay Tiwari*

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**E4. A Modified Infant Face Mask Provided Nasal CPAP/PCV to Maintain Oxygenation in a Morbidly Obese OSA Patient with Advanced Lung Cancer during Outpatient FOB Resection of Endobronchial Tumor Under MAC**

*Cara Esser, James Tse, Sylviana Barsoum, Hosana Tordecilla*

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**E5. The Safety and Efficacy of Laryngeal Mask Airway Insertion in Prone Position**

*Fatemeh Hajimohamadi, Afshar Etemadi-Aleagha, Mehrdad Behzadi, Abolghasem Yoosefi, Arash Jafarieh, Nader Ali Nazemian Yazdi, Hamed Abdollahi, Nahid Azimi, Mina Abdolahi*

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**E6. Effects of Histones on Endothelial Barrier Function and Vascular Permeability of the Lungs**

*Yunbo Ke, Junghyun Kim, Ramasubramanian Baalachandran, Yue Li, Anna Birukova, Konstantin Birukov*

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**E7. An Airway Management Tool for General Anesthesia during Caesarean**

*Andrew King, Kirbie D Broughton, Hussam Ghabra, Allison Clark, Philip Boysen, Bobby D Nossaman*

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**E8. A Randomized Controlled Trial Comparing the Clinical Performance of Laryngeal Masks in Young Pediatric Patients**

*Wonuk Koh, Ha-Jung Kim, Hee-Sun Park, Young Jin Ro, Hong-Seuk Yang*

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**E9. Effect of Endotracheal Tube Lubrication on Cuff Pressure Increase during General Anesthesia using Nitrous Oxide: A Prospective Randomized Controlled Trial**

*Yukihide Koyama, Tomio Andoh*

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**E10. Best Practices in Endotracheal Intubation for Pediatric Patients with Difficult Airway Due to Micrognathia**

*Vera A. Sergeeva, Nathalia Jimenez, Agnes Hunyady*

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**E11. Evaluation of Patient Comfort Score and Recall of Procedure during Retrograde Intubation with Two Different Doses of Dexmedetomidine Infusion**

*Tanmay Tiwari, Ashish Walian, Satish Dhashmana*

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**E12. Conventional Bronchoscope Is More Controllable Than Disposable Bronchoscope for Oral Tracheal Intubation**

*Yuri Tsuchiya, Chiara Sonnino, Tomoko Fukada, Hiroko Iwakiri, Akiko Zaitzu, Makoto Ozaki, Minoru Nomura*

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**E13. Insertion Pressure Necessary for Inadvertent Endotracheal Placement of a Gastric Tube in a Simulated, Intubated Trachea**

*David Wallace, Kevin Blaine*

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**E14. Does the Use of Intravenous Patient Controlled Analgesia (IPCA) Increase Opioid Consumption and Side Effects in Fast Track Orthopedic Procedures?**

*Sameh M. Abdelghany, Zeev Friedman, David Backstein, Jaclyn Ricci, Xiang Y. Ye, Naveed Siddiqui*

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**E15. Average Opioid Consumption and Pain Scores during First Postoperative Week after Outpatient Orthopedic Surgery**

*Sunny Chiao, Ashley Shilling, Pushpaben Rathod*

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**E16. High Rates of Postoperative Opioid Overprescription Following Minimally Invasive Ambulatory Surgery**

*Anjali Dixit, Solmaz P. Manuel, Christina Inglis-Arkill*

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**E17. Outcomes in Outpatient vs Inpatient Laparoscopic Hysterectomy: Is It the Type of Setting or the Patient Characteristics That Matters?**

*Eric Rosero, Girish P. Joshi*

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**E18. Long-Lasting Sensory Blockade Produced by Quaternary Lidocaine Derivatives: A Preclinical Study on the Comparative Efficacy and Safety of QX-314, QX-572, and QX-222 in Mice**

*Desmond H. Fung, Hye Y. Kim, Bernard A. Macleod, Ernest Puil, Stephan K. Schwarz*

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**E19. Effects of Propofol and Its Components on Neutrophils Migration and Macrophages Obtained from Lung and Adipose Tissue of Obese Rats: An in Vitro Study**

*Luciana B. Heil, Fernanda F. Cruz, Mariana Antunes, Cassia Lisboa, Lais Agra, Rebecca Bose, Soraia Abreu, Paolo Pelosi, Pedro L. Silva, Patricia R. Rocco*

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**E20. A Sevoflurane Binding Site in Ryanodine Receptor 1**

*Thomas T. Joseph, Grace Brannigan, Roderic G. Eckenhoff, Kellie Woll*

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**E21. Nonlinear Pharmacokinetic Behavior of High Dose Propofol in Swine**

*Tae Kyun Kim, Ken Johnson, Talmage D. Egan, Nathan Pace, Olinto Linares-Perdomo, Greg Peterson*

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**E22. Sevoflurane Enhances Inhibitory and Reduces Excitatory Inputs to Cortical Layer IV Neurons in the Thalamocortical Network of Murine Brain Slices**

*Claudia Kopp, Gerhard Schneider, Matthias Kreuzer, Rainer Haseneder, Stephan A. Kratzer*

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**E23. Prospective Evaluation of a Protocol for Rocuronium Block and Neostigmine or Sugammadex Reversal**

*Timothy N. Kruse, Tinny Liang, Sanjay Bhananker, Kevin Cain, Miriam Treggiari, Stephan Thilen*

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**E24. GABA<sub>A</sub> Receptor Actions of ABP-700 and Its Carboxylic Acid Metabolite CPM-Acid: Implications for Toxicological Studies and Clinical Development**

*Megan McGrath, Beartrij Valk, Douglas E. Raines*

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**E25. Reasons Selected to Transfuse Outside Laboratory Test-Based Guidelines in Whole Hospital and Cardiac Surgery Cohorts**

*Connie W. Chaudhary, Charlie Slowey, Tymoteusz Kajstura, Mereze Visagie, Brad Winters, Promise Ariyo, Steven M. Frank*

**E26. Efficacy and Safety of  $\epsilon$ -Aminocaproic Acid in Open and Minimally Invasive Cardiac Surgery**

*Marta Kelava, Anand Mehta, Shiva Sale, Lucy Thuita, Douglas Johnston, Marc Gillinov, Eugene H. Blackstone*

**E27. Massive Transfusion in Lung Transplantation: Association Between Ratio of Fresh Frozen Plasma to Packed Red Blood Cells and Survival**

*Johannes Menger, Dieter Adelman, Stefan Koch, Peter Jaksch, Martin Dworschak*

**E28. An Effective and Efficient Testing Protocol for Diagnosing and Managing Iron Deficiency Anemia Preoperatively**

*Obianuju Okocha, Hardik Dand, Michael J. Avram, Bobbie Jean Sweitzer*

**E29. 4-Factor Prothrombin Complex Concentrate Administration Does Not Alter the Amount of Fresh Frozen Plasma Transfused in a 24-Hour Period**

*Paul Pokrandt, Sammie Roberts, Milo Engoren, Elizabeth S. Jewell, Mary Berg, Michael Maile*

**E30. RBC Transfusion Prescribing Trends by Provider Type in an ICU Setting Pre: And Post-Epic Implementation**

*Charlie Slowey, Connie W. Chaudhary, Tymoteusz Kajstura, Mereze Visagie, Steven M. Frank*

**E31. Reducing Unnecessary Preoperative Blood Orders and Associated Costs for Open and Robotic Radical Prostatectomy**

*Mereze Visagie, Natasha Gupta, Tymoteusz Kajstura, Trinity Bivalacqua, Steven M. Frank*

**E32. Continuous Erector Spinae Plane Block Facilitates Opioid Sparing after CATS Surgery: A Case Series**

*Rebecca Anderson, Rebecca Y. Klinger, Thomas D'Amico*

**E33. Effect of Low Dose 6% Hydroxyethyl Starch (130/0.4) and Renal Function in Cardiac Surgical Patients**

*Muralidhar Kanchi, Mohana Murali, Manjunath Udresh, Kumar G. Belani*

**E34. Severe Cardiac Clot Burden in Pulmonary Embolism: Evaluation by Transesophageal Echocardiography**

*Brad P. Moore, Isaac Wu*

**E35. Encephalography Guidance of Anesthesia to Alleviate Geriatric Syndromes (ENGAGES-CANADA) Study in Cardiac Surgery Patients: A Pragmatic, Randomized Clinical Trial**

*Jennifer Palermo, Charles Overbeek, Laura Vogler, Alain Deschamps, Andrea Alicia Dumont, Fatine Karkri, Simon Schreiber, Eric Jacobsohn, Renée El-Gabalwy, Morvarid Kavosh, Tarit Saha, Rob Tanzola, Kai Chen, Nicole Relke, Debbie Dumertonshore, Michael Avidan, Jordan Oberhaus*

**E36. Airway Seen through the Eyes of a Cardiac Anesthesiologist**

*Sarah Saxena, Adel Aminian, Anne Daper*

**E37. Aortic Intramural Hematoma Complicating a Routine Cardiac Surgery**

*Andrew Weaver, Harish Ram, Johan Dorfling*

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**E38. Comparing the Efficacy of the Novel Iron Chelator, DIBI, with Different Classical Iron Chelators in Murine Poly-Bacterial Sepsis**

*Maral Aali, Kayle Dickson, Juan Zhou, Bruce Holbein, Christian Lehmann*

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**E39. Diaphragmatic Thickness in Patients Receiving PRVC Ventilation and SIMV: A Randomized Controlled Trial**

*Sulagna Bhattacharjee, Dalim K. Baidya, Souvik Maitra, Ravinder K. Batra*

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**E40. Assessing Sleep Quality and Delirium Prevalence in Cardiac ICU Patients**

*Claudia Bruguera, Dana Arekat, Ina Zaimi, Andrea Tsai*

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**E41. Cardiac Arrest Secondary to R-on-T Phenomenon Caused by Temporary Epicardial Pacemaker Following Cardiac Surgery**

*Michelle Chen, Tichaendepi Mundangepfupfu*

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**E42. Lower Oxygen Delivery Is Associated with Delirium and Death in a Single Center Retrospective Cohort Study of 1,452 Patients**

*Nathan Clendenen, Benjamin Abrams, Nathaen Weitzel*

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**E43. Chronic Opioid Dependence after Isolated Traumatic Brain Injury: A Cross-Sectional Study with Longitudinal Outcome**

*Lauren K. Dunn, Davis G. Taylor, Samantha Smith, Alexander Skojec, Tony Wang, Joyce Chung, Mark Hanak, Chris Lacomis, Justin Palmer, Caroline Ruminski, Shenghao Fang, Siny Tsang, Sarah Spangler, Marcel Durieux, Bhiken Naik*

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**E44. Rage-Dependent Group 2 Innate Lymphoid Cell Expansion Causes Type 2 Immune Dysfunction in Hemorrhagic Shock**

*Xiangming Fang*

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**E45. Effect of Angiotensin-II on Vasopressor Dose and Safety in Patients with Severe Vasodilatory Shock**

*Ashish K. Khanna, Paula Ferrada, Aaron Strumwasser, Alexander Zarbock, Caleb Mackey, Jonathan Wilkinson, Damian Handisides, John Prowle*

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**E46. Coughing Induced Cardiac Arrest after Superior Vena Cava Stent Placement: A Case Report**

*Kevin J. Min*

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**E47. Rescue Tee for Differentiating and Managing Shock in Critically Ill Patient**

*Estuardo J. Saravia Fernandez, Vaibhav Bora*

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**E48. Vasopressor Dosing in Septic Shock Clinical Trials: A Systematic Review and Meta-Analysis**

*Bijan Teja, Nicholas A. Bosch, Allan J. Walkey, Ruxandra Pinto, Hannah M. Wunsch*

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**E49. Predictive Factors for Catheter-Related Bloodstream Infections: An Analysis of Patient Records Over 5 Years in the Intensive Care Unit of a University Hospital**

*Tomoko Yorozu, Kiyoshi Moriyama, Joho Tokumine, Akira Motoyasu*

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**E50. Puzzle-Based Ultrasound Education for Healthcare Trainees Lays the Foundation for Future U.S. Skills**

*Luna Chaaban, Mada Helou, Ryan Nazemian, Lydia Chen, Mariyah Bower, Peggy Seidman*

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**E51. Resource Utilization in Implementation of a PoCUS Curriculum for Resident Training in Anesthesiology**

*Viji Kurup, Garrett Sendlewski, Christine Baer, Ranjit Deshpande*

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**E52. Faculty Gender Specific Academic Advancement in U.S. Anesthesiology Teaching Programs and Examination of Contributing Factors Based on Publicly Available Data**

*Brenda M. Lee, Farhad Zahedi, Ina Zaimi, David Moss, Roman Schumann*

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**E53. Gender Bending: A National Perspective on Leadership Amongst Female Anesthesiologists in Canada**

*Gianni R. Lorello, Alana Flexman*

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**E54. Reporting Preclinical Anesthesia Study (REPEAT): Evaluating the Quality of Reporting in the Preclinical Anesthesiology Literature**

*Ryan McGinn, Dean A. Fergusson, Marc Avey, Grace Fox, Neil L. Wesch, Manoj M. Lal*

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**E184. Effects of Lidocaine on Breast Cancer Cells and the Potential Role of Transient Receptor Potential Melastatin 7 (TRPM 7)**

*Zhaosheng Jin, Hengrui Liu, Jiaxin Liu, James P. Dilger, Jun Lin*

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**E185. Pectoral Block vs Paravertebral Block: A Systematic Review and Meta-Analysis**

*Zhaosheng Jin, Jiaxin Liu, Ru Li, Tong Joo (TJ) Gan, Jun Lin*

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**E186. Safety and Efficacy of a Regional Anesthetic Protocol Performed by General Anesthesiologists for Total Knee Arthroplasty in a Rural Community Hospital**

*Kathleen Johnson, Hannah M. Harris, Matthew W. Bullock, Daniel J. Forest, Melissa Laxton, Jordan Rejeski, Yvon F. Bryan*

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**E187. Preoperative Pregabalin Prolongs Spinal Anesthesia for Total Knee Arthroplasty**

*Deniz Oguz, Sergey Pisklakov*

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**E188. Comparison of Post Operative Analgesia and Incidence of Chronic Pain in Quadratus Lumborum Block and Transversus Abdominis Plane Block in Patients Undergoing Elective Inguinal Hernia Surgery**  
*S. Adinarayanan, Karthikeyan Alagumalai, Vasudevan Arumugam*

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**E189. A Report on 105 Outpatient Total Knee Arthroplasties**  
*Cameron Smith, Linda Le-Wendling, Barys Ihnatsenka, Olga Nin, Luis F. Pulido, Hari K. Parvataneni, Andre P. Boezaart*

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**E190. Is Extrapolation of Animal Data for Intraneural Injection to Humans Valid?**  
*Cameron Smith, Anna Server, Steven Vose, Xavier Sala-Blanch, Erik M. Helander, Miguel A. Reina, Andre P. Boezaart*

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**E191. Non-Invasive Respiratory Volume Monitoring in the Perioperative Management of OSA Patients in an Ambulatory Setting**  
*Vimal Desai, Shawn Winnick, Peggy G. Duke, Diana Laplace, Vu T Nguyen, Atef Morkos, Stephen Moy, Elena Chung, Jennifer Naughton, Jennifer Dang, Ryan Depakakibo, Chunyuan Qiu*

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*Ana Fernandez-Bustamante, Juraj Sprung, Karsten Bartels, Carolina Kosour, Toby Weingarten, Marcos Vidal Melo*

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*Keisuke Kawata, Kazunori Okabe*

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**E194. Perioperative Risk Factors for Postoperative Respiratory Complications in Patients at Risk for Obstructive Sleep Apnea**  
*Alberto A. Uribe, Sergio Bergese, Alan G. Esparza Gutierrez, January K. Kim, Marilly Palettas, Juan Fiorda-Diaz, Nicoleta Stoicea*

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**E195. Effect of Cardiac Surgery on Post-Operative Sleep Patterns: An Observational Study**  
*Amanda Kleiman, Julie Huffmyer, Edward C. Nemergut, Lauren K. Dunn, Eryn L. Thiele, Jane L. Gui*

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**E196. Evaluation of Micropore's Spiralith Absorbents into Anesthesia Breathing Circuits**  
*Raksha Bangalore, Andrea Perales, Anna Korban, George Tewfik*

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**E197. Comparing Hemorrhage in Human Physiology Simulation Tools: How They Stack Up Against Expected Human Physiology and Each Other**  
*John J. Barnes, Mojca R. Konia, Jon Keller, Kenneth Kiberenge*

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**E198. Impact of Preload Changes on Tissue and Cerebral Oxygenation Values**  
*Anna-Maria E. Eid, Abdallah Yassin, Mona A Ganash, Mai Khairy, Samar Seleem, Somaia A. Mohamed, Aymen Alian*

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*Atsushi Kainuma, Koichi Akiyama, Yoshifumi Naito, Mao Kinoshita, Masaru Shimizu, Maki Ishii, Junya Ohara, Teiji Sawa*

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**E200. Transcutaneous Measurement of Volatile Anesthetic Gas: A Preliminary Study**

*Ernesto A. Pretto, Robert Fiala, Ahmed H. Jalal, Carla R. Cordova, Yogeswaran Umasankar, Shekhar Bhansali*

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**E201. Glucose Measurements in Blood-Free Balanced Salt Solutions with Three Devices**

*Matthias Riess, William J. Cleveland, Johannes A. Pille, Felicia P. Lotze, Michele M. Salzman, Claudius Balzer, Josephine Hees*

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**E202. Diagnosing Respiratory Obstruction with Continuously Recorded Tidal Breathing Flow Volume Loops using a Non-Invasive Respiratory Volume Monitor**

*Wael Saasouh, Peggy G. Duke, Man Ching Cheung*

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**E203. Background Music Contributes to Error in the Operating Room**

*Joseph Schlesinger, Kendall J. Burdick, Clayton D. Rothwell*

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**E204. Validation of Non-Invasive Beat-To-Beat Finger Arterial Pressure Measured Ipsilateral and Contralaterally of the Radial Artery Blood Pressure**

*Rogier V. Immink, Denise P. Veelo, Julia Heusdens, Bart F. Geerts, Lotte Terwindt*

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**E205. The Role of Microtubule Instability in the Histone-Induced Endothelial Barrier Dysfunction**

*Boyoung Cha, Junghyun Kim, Chenou Zhang, Kenichi Tanaka, Konstantin Birukov, Anna Birukova*

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**E206. Sevoflurane Is Associated with Worse Clinical Outcomes and Altered Inflammatory Markers in Blunt Trauma Patients: Pharmacogenomic Association with Single Nucleotide Polymorphisms rs4715332 and rs1695**

*Maria A. Cohen, Lukas Schimunek, Rami A. Namas, Ata M. Kaynar, Markus Huber-Lang, Timothy R. Billiar, Yoram Vodovotz*

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**E207. Intraoperative Management of a Trauma Patient with Suspected Malignant Hyperthermia, Hemorrhagic Shock, and Acute Pulmonary Edema Necessitating ECMO: A Case Report**

*Andreas Plackis, Steve Hyman, Amy Robertson*

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**E209. Circulating Plasma miRNAs Trigger Innate Immune Activation in a Mouse Model of Polytraumatic Injury**

*Andrew O. Suen, Sheng Wang, Lin Zou, Rosemary Kozar, Catriona Miller, Wei Chao*

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**F1. Changes in Applied Laryngoscope Force Affect Peak Spinal Cord Strain**

*Benjamin C. Gadomski, Brad J. Hindman, Mitchell Page, Michael Todd, Vincent C. Traynelis, Christian M. Puttlitz*

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*Min Hur, Tae Kyong Kim, Hyung-Chul Lee*

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**F3. Effect of Cervical Collar on Oropharyngeal Sealing Pressure and Fiberoptic View of the Glottis with Ambu Aura Gaintm Laryngeal Airway: A Randomized Cross Over Trial**

*Suman Lata, Sandeep K. Mishra, Duraiyarassu Uthaman*

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**F4. Vallecular Cyst in a Patient Undergoing Emergency Embolization of Ruptured Cerebellar Aneurysm: An Unanticipated Difficult Airway**

*Yamin A. Noor, Eric Kamenetsky*

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**F5. Experimental Study on Temperature Change in Circuit during Low Flow Anesthesia Due to Difference in Anesthesia Circuit**

*Nobukazu Sato, Hiroko Baba*

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**F6. A Pilot Study to Determine the Accuracy of Ultrasound in Measurement of the Dimensions of the Pediatric Cricothyroid Membrane**

*Bill A. Walsh, Paul Fennessy, Roisin Ni Mhuirheartaigh, Aisling Snow, Kevin McCarthy, Conan McCaul*

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*Audrice Francois*

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**F8. Use of a Modified Infant Face Mask and a Mapleson C Circuit to Maintain Spontaneous Nasal Ventilation and Oxygenation in Obese Patients during Outpatient EGD and Colonoscopy**

*James Tse, Sylviana Barsoum, Kang Rah*

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**F9. Propofol Toxicity in Cardiomyocyte Mitochondria of Developing Mice: The Role of the Mitochondrial Transition Pore**

*Matthew Barajas, Richard J. Levy, Sarah Brunner, Lifei Wang, Aili Wang*

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**F10. S-Ketamine Enhances Thalamocortical As Well As Intracortical Synaptic Transmission in Mouse Brain Slices**

*Matthias Bieber, Claudia Kopp, Gerhard Schneider, Matthias Kreuzer, Stephan A. Kratzer, Rainer Haseneder*

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**F11. Sevoflurane Enhances iNOS Expression and Bactericidal Effects of Macrophages In Vitro and In Vivo in a Murine Model**

*Thomas Gerber, Valerie C. Fehr, Suellen Oliveira, Guochang Hu, Randal O. Dull, Marcelo Bonini, Beatrice Beck-Schimmer, Richard Minshall*

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**F12. Pharmacodynamics of Handgrip Strength during Induction of Propofol Anesthesia**

*Christian S. Guay, Gilles Plourde*

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**F13. Effect of Sevoflurane and Propofol on a Human Breast Cancer Cell Line with Tropism to Brain in Vitro**

*Zhaosheng Jin, Jiaxin Liu, Hengrui Liu, Jun Lin*

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**F14. Intravenous vs Volatile Anesthesia and Breast Cancer Surgery Outcome: A Systematic Review and Meta-Analysis**

*Zhaosheng Jin, Ru Li, Jiaxin Liu, Jun Lin*

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**F15. At Supra-Clinical Doses ABP-700 Produces Involuntary Muscle Movements Distinct from Seizure Activity in Beagle Dogs**

*John Marota, Dario Lehoux, Brad Zerler, Mylene Pouliot, Simon Authier*

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**F16. Differential Inhibition of Steroidogenesis by Etomidate and Etomidate Analogs in Adult Male Rats**

*Megan McGrath, Alissa Hofmann, Douglas E. Raines*

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**F17. A Semimechanistic Model to Characterize the Pharmacokinetics and Dynamics of Subcutaneous Dexmedetomidine in Healthy Adult Volunteers**

*Teijo I. Saari, Muhammad W. Ashraf, Panu Uusalo, Mika Scheinin*

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**F18. Studies of the New Neuromuscular Blocking Agent CW 1759-50 in the Cat, As in Monkeys, Predict Short- to Ultra-Short Duration in Humans, Reflecting Rapid Degradation by L-Cysteine Adduction in Vitro**

*John J. Savarese, Hiroshi Sunaga, Jeff Mcgilvra, Paul M. Heerdt, Anita M. Jegarl, Farrell Cooke, Stewart McCallum, Randy Mack*

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**F19. Prevalence of Bradycardia Associated with Sugammadex Administration in a Single-Center Retrospective Analysis of Electronic Medical Record Data**

*Matthew Weis, Courtney Elder, Arjun Meka, Lauren Meyer, Craig S. Jabaley, Milad Sharifpour, Vikas N. O'Reilly-Shah*

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**F20. Restrictive Versus Liberal Transfusion Strategies in Cardiac Surgery: A Systematic Review and Meta-Analysis with Trial Sequential Analysis**

*Hessam Kashani, Carly Lodewyks, Morvarid S. Kavosh, Christine Neilson, Rasheda Rabbani, Ahmed Abou-Setta, Hilary P. Grocott*

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**F21. The Effect of Topical and Intravenous Tranexamic Acid on TXA Levels, Thrombogenic, and Inflammatory Markers in Patients Undergoing Total Knee Replacement: A Randomized Double-Blind Controlled Study**

*Audrey Tseng, Kethy Jules-Elysee, Thomas Sculco, Lila R. Baaklini, Alexander S. McIlwhorn, Amanda J. Pickard, Weige Qin, Justin Cross, Edwin Su, Kara G. Fields, David Mayman*

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**F22. Greater Anemia Tolerance in Females Compared to Males for Inpatient Mortality**

*Mereze Visagie, Kathryn Pearson, Taylor Purvis, Eric A. Gehrie, Steven M. Frank*

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*Andres Bacigalupo Landa, Jayanand D'Mello*

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**F24. Guidance of A Bi-Caval Dual Lumen Catheter Placement and Diagnosis of a Catastrophic Complex Occlusive Thrombus: Case Report and Literature Review**

*Sunny Chiao, Amanda Kleiman*

**F25. Metabolomic Profiling Reveals Sex Differences and a Reduction in Metabolism after Remote Ischemic Preconditioning**

*Elijah Christensen, Anushri Desai, Trevor Banack, Joel Zylberberg, Nathan Clendenen*

**F26. Can the Regional Saturation of Oxygen Value Predict Complications Associated with Access-Related Vascular Injury during Transfemoral Transcatheter Aortic Valve Implantation?**

*Shihoko Iwata, Mihoshi Sato, Sumire Yokokawa, Keisuke Nakazawa, Makoto Ozaki*

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*Kenneth Joseph, Kimberly H. Burcar, Jayanta Mukherji, Tewodrose Aseffa, Amanda M. Garza*

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*Akiko Kawakami, Tamaki Sato, Yosuke Nakadate, Patricia Roque, Arkady Khoutorsky, Hiroaki Sato*

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*Marcos Lopez, Christopher G. Hughes, Matthew Shotwell, Frederic (Josh) Billings*

**F30. Effect of Intranasal Insulin Administration on Glycemia and Plasma Insulin in Cardiac Surgery Patients**

*Yosuke Nakadate, Patricia Roque, Hiroaki Sato, Tamaki Sato, Akiko Kawakami, Linda Wykes, Renzo Cecere, Dominique Shum-Tim*

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*Brian O'Gara, Ariel Mueller, Doris Vanessa Gasangwa, Alvaro P. Leone, Edward Marcantonio, Balachundhar Subramaniam*

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*Daniel Szoke, Ravi Taneja, Zach Hynes*

**F33. Preliminary Results of a Study on the Use of a Wireless Holter-Like Device to Detect Patients with Silent Atrial Fibrillation Leading to New Onset Atrial Fibrillation after CABG**

*Lian Kah Ti*

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*Emily Wang, Aaron Mittel*

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*Swapnil Aswar, Mathieu Georges, Gianluca Bertolizio*

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*Michael W. Best, Layne Madden, Matthew Wiepking, Salila Hashmi, Maxwell Hockstein, Craig S. Jabaley, Mark Caridi-Scheible*

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*Adjoa Boateng, Jodi Sherman*

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*Christina Boncyk, Christopher G. Hughes, Joanna Stollings, Matthew Shotwell, Xiaoke Feng, Matt Marshall*

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*Jaume Borrell Vega, Alberto A. Uribe, Marilly Palettas, Sergio Bergese*

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*Anna Ciullo, Suzanne Bennett*

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*Jeong-Pyo Hong, Tak Kyu Oh, Sung-Hee Han, Jung-Hee Ryu, In-Ae Song*

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*Diana Hylton, Rebecca A Aslakson*

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*Rayleen Jones, Vijay Krishnamoorthy, Karthik Raghunathan*

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*Ashish K. Khanna, Bruce Friedman, Caleb Mackey, Rakshit Panwar, Adam Evans, Laith Altaweel, Damian Handisides, Annette C. Chavez, Ara Klijian*

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*Ryan McGinn, Dean A. Fergusson, Arnold S. Kristof, Carly C. Barron, Dawn Stacey, Manoj M. Lalu*

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*Lauren Myers, Andrew Barker, Brant Wagener*

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*Arun Prakash, Xiaoli Tian*

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*Jamie Privratsky, Jiafa Ren, Benjamin Morris, Steven D. Crowley*

**F49. Mushroom Poisoning from Amanita Phalloides Resulting in Orthotopic Liver Transplantation**

*Jeremy T. Rainey, Avneep Aggarwal*

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*Brittney Williams, Jessica Neder, Lin Zou, Wei Chao*

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**F51. Assessing Post-Surgical Mortality Risk through Nonlinear Coupling of Intraoperative Heart Rate and Blood Pressure Time Series**

*Alexander L. Young, Hau-Tieng Wu, Willem Van Den Boom, Vijay Krishnamoorthy, Karthik Raghunathan, David B. Dunson*

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*Mushfique Ahmed, Nicholas Schott*

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*James Fehr, Timothy P. Welch, Todd J. Kilbaugh, John J. McCloskey, Lindsay Juriga, Arbi Ben Abdallah*

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**F54. Insurance Payor Status Not An Independent Risk Factor for Post-Operative Complications of Anterior Lumbar Interbody Fusion Surgeries**

*John Foote, Daniel Snyder, Sean Neifert, Jonathan Gal*

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**F55. Does a Simulation Course Lead to Improved Management of an Emergency Situation? to Determine the Efficacy of a Simulation Course on Clinical and Non-Clinical Competency**

*Stephanie Herbstreit, Cynthia Szalai*

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*Jon Holzberger, Annette Rebel, Amy D Lorenzo, Randall M. Schell, Jeremy S. Dority*

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*Julie Huffmyer, Amanda Kleiman, Matthew Moncrief, David Scalzo, Daniel J. Cox, Edward C. Nemergut*

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**F58. Electronic Decision-Support Tools to Enhance Compliance with Performance Measures for Perioperative Temperature Management**

*Sameer Lakha, Matthew Levin, Andrew Leibowitz, Hung-Mo Lin, Jonathan Gal*

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**F59. Trends in Monthly Frequency of Common Elective Procedures Based on Insurance Status: A National Inpatient Sample Analysis**

*Daewoong Lee, Alexander Nagrebetsky, Richard Dutton, Richard D. Urman*

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*Gianni R. Lorello, Tulin Cil, Fiona Webster, Alana Flexman*

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**F61. Women Program Directors in Anesthesiology: Closing the Gender Gap**

*Andrea N. Miliades, Alexander Rusanov, Teresa Mulaikal, Maya Hastie*

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**F62. Use of 30-Day Versus 90-Day Mortality Rates Following Cardiac Surgery to Compare Quality in New York State**

*Aaron Mittel, Dae Hyun Kim, Zara Cooper, Michael Argenziano, May Hua*

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*Singh Nair, David Adams, Jonathan Leff, Ellise Delphin, Benjamin Schwartz*

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*Pedro P. Tanaka, Yoon Soo Park, Linda Liu, Chelsia Varner, Ankeet D. Udani, Charandip Sandhu, Roya Yumul, Kate Tobin McCartney, Jared Spilka, Alex Macario*

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**F65. Comparing Prefilled Syringes of Phenylephrine to Standard Practice in an Operating Room Setting**

*Jordan Tarshis, Stephen Choi*

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*Terrie Vasilopoulos, Brenda Fahy, Mohammed Almualim, Peggy White, Rogerio A. Santos, Deborah J. Culley*

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*Michael Wajda, William Kim, Aaron Primm, David Furguele, Ian Zolnowski, Justin Feit, Mitchell Lee*

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*Anoushka Afonso, Dahniel Sastow, Gregory W. Fischer, Armin Shahrokni*

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**F69. Ease of Implementing Routine Preoperative Cognitive Screening to Identify Surgical Patients at Risk for Perioperative Neurocognitive Disorder**

*Justyne Decker, Arash Motamed, Carol J. Peden*

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**F70. Hemodynamic Effects of Dexmedetomidine on Elderly Patients with Proximal Femoral Fractures Under Spinal Anesthesia**

*Sangeun Lee, Jaehong Park, Dongju Shin Shin, Jaehwan Kim*

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**F71. A Survey of Older People after Major Surgery: Prioritization of Routine and Patient-Reported Postoperative Outcome Measures**

*Julia F. Shaw, E. Beasley, E. Hladkiewicz, Gregory L. Bryson, Daniel I. Mclsaac*

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**F72. The Impact of Frailty on Outcomes in Adult Trauma Patients: A Systematic Review and Meta-Analysis**

*Julia F. Shaw, A. Poulton, F. Nguyen, C. Wong, A. Tran, J. Lampron, Manoj M. Lalu, Daniel I. Mclsaac*

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**F73. Anaphylaxis Associated with Sugammadex: A Case Report**

*Ioannis Angelidis, Jayanta Mukherji, Kimberly H. Burcar*

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**F74. Management of a Thrombus Overriding a Patent Foramen Ovale in a Patient with Concomitant Pulmonary Embolism**

*Christian S. Balabanoff Acosta, John Carey, Richard A. Zack-Guasp, Srikar Jonna, Rafael Arciniegas Flores, Anna M. Schuerner, Arnaldo Vera-Arroyo, Oscar Aljure, Ricardo Martinez Ruiz, Roger Alvarez*

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**F75. The Supertube: A Novel Lung Isolation Technique in Managing Bronchopleural Fistula**

*Kacie Bhushan, Carlee A. Clark, Stephanie Whitener*

**F76. Anesthetic Experience with MR-Guided Infusion of Adeno-Associated Virus Encoding Human Aromatic L-Amino Acid Decarboxylase (AADC) into the Midbrain of Pediatric Patients with AADC Deficiency**

*Josemine M. Carey, Gabriel E. Sarah, Nalin Gupta*

**F77. Superior Vena Cava in the Operating Room**

*Adaora Chima, Ahmed R. Khan*

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*Grace Cunningham, George D. Gilkey*

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*Warren Fowler, Jeffrey D. White*

**F80. Cervical Spine Surgery with Neuromonitoring Under Total Intravenous Anesthesia in the Patient with a History of Stevens-Johnson Syndrome - How Did I Tailor My Anesthetic?**

*Daniel Garcia, Marina Moguilevitch, Sergey Pisklakov*

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*Steffin Golden, Caleb A. Harrell, Arturo Torres*

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*Andrew Greenwald, Tarif Chowdhury, Joseph Hostyk, Ruth Landau, Peter Yim*

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*Andrew Greenwald, Gene T. Yocum*

**F84. Neuroleptic Malignant Syndrome in Patient with a Saddle Pulmonary Embolus**

*Jonathan Kim, Genevieve Manahan, Albert Yen*

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*Adeline Kim, Christopher Fjotland, Samuel Kiel*

**F86. Management of a Patient with a Large Anterior Mediastinal Mass and Syncope**

*Kathryn Klatman*

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*Danielle Lovett-Carter, Maurice F. Joyce*

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*Genevieve Manahan, Jonathan Kim, Christine Choi, Kashif Khan*

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*Hiroki Matsushita, Hiroki Omiya, Kenji Uehara, Waso Fujinaka, Makoto Takatori*

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**F90. Irreversible Anaphylaxis to Thymoglobulin in Living Donor Renal Transplantation**

*William P. Qiao, Mark A. Weller*

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**F91. Angiotensin-II for Treatment of Severe Refractory Distributive Shock Post Cardiac Bypass**

*Patrick Savery, Marcela Hanakova*

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**F92. Pancreatic Artery Pseudoaneurysm after Right Nephrectomy, Retroperitoneal Lymph Node Dissection with IVC Reconstruction: A Rare But Important Complication after Idiopathic Pancreatic Injury**

*Opetomi O. Seriki, Peiman Lahsaei*

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**F93. Central Diabetes Insipidus Due to Ketamine Infusion in a Patient on Veno-Venous Extracorporeal Membrane Oxygenation**

*Juhee Sharma, Christin Kim*

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**F94. The Case of the Traveling Tumor**

*Jaspinder Sra*

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**F95. Prolonged Unexpected Hypotension after Routine Combined Spinal Epidural in an Obese Parturient**

*Aisha Ullah, Keith M. Vogt*

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**F96. An Uncommon Cause of Lactic Acidosis in a Renal Transplant Recipient**

*Judah Weiss, Anoop K. Chhina*

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**F97. Intra-Operative Electroencephalogram Correlates of Post-Operative Neurocognitive Resilience in Older Adults**

*Leah Acker, Miles Berger, Junhong Zhou, Lewis Lipsitz, Marty G. Woldorff, Heather E. Whitson*

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**F98. Decreased Frontal Interhemispheric Synchronization: A Novel Evoked EEG Index That Correlates with Post-Operative Cognitive Dysfunction**

*Dana Baron Shahaf, Gregory Hare, Avishai Ziser, Judith Aharon-Peretz, Tali Fisher, Gil Bolotin, Oved Cohen, Keren Worms, Yaron Berkovich, Goded Shahaf*

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**F99. Differential Effects of Hypoxia on Cognitive Function Domains in Humans at Sea Level and High Altitude**

*Odmara Barreto Chang, Philip Bickler, Leah Campbell, Frances Zoresnky*

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**F100. Effects of Metabotropic Glutamate Receptor Blockers on Neonatal Rat Brain**

*Tinatin Chabrashvili, Jesus Azocar, Roman Schumann, Ruben J. Azocar*

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**F101. Influence of Perioperative Antibiotic Use on Postoperative Cognition**

*Sarah Cotter, Paul E. Wischmeyer, John Hunting, Rebecca Y. Klinger, Joseph P. Mathew*

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**F102. Behavioral Sedation EEG Changes Induced by Dexmedetomidine Attenuated But Not Eliminated in a Novel Arda2a Knockout Mouse**

*Benjamin A. Harrison, Andrzej Wasilczuk, Paula Kwasniewska, Bo Ku, Juliette Palermo, Steven Thomas, Andrew Mckinstry-Wu*

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*Kevin W. Hatton, Greeshma Allareddy, Andrew Clark, Emily Slade, Ran Duan, Justin Fraser*

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*Andrew Hudson*

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